2019 / 20

KE*Line*®

STRUCTURED
CABLING
SYSTEM

STRUCTURED CABLING AND EUROPEAN LAW FOR FIRE SAFETY IN BUILDINGS

After the 1st of July 2017 all fixed copper and fibre optical cables within buildings and other civil engineering works are subject of EU Construction Products Regulation (CPR).

EU legislative requirements:

1. To define the fire behavior of cables **REACTION TO FIRE** classification based on harmonized European standards must be used.
   Note: Existing PVC, LSOH, LSFROH or similar markings are considered as additional information only.

2. Fire testing and reaction to fire classification of cables must be carried out by a **NOTIFIED BODY** (acredited notified testing laboratory).

3. The **DECLARATION OF PERFORMANCE** - **DoP** - (see below) has to be issued by a manufacturer for each cable and has to be provided in the native language of each country where product is sold. DoP provides information on the fire performance of a cable for tender bids, insurance companies, consultants, architects, building engineers, constructors or end-users. DoP is an official document required by a regional fire regulator or other authority for building inspection.

4. Cables have to carry **LABELS WITH MANDATORY CPR INFORMATION** including CE mark (see below).

It is illegal to sell and install non-CPR compliant cables in the EU since the 1st of July 2017 !

Example of DoP:

KRUGEL EXIM — KE*Line*®

DECLARATION OF PERFORMANCE

No. 00003

Annex III Construction Product Regulation (EU) No 305/2011.

1.	Unique identification code of the product-type:	KE550HS23/1E-Eca
2.	Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4):	KE*Line*® STP 4x2xAWG23, Category 6_A, 550MHz, LSOH, Euroclass E_{ca}
3.	Intended use or uses of the construction product	Supply of communications in buildings and other civil engineering works with the objective of limiting the generation and spread of fire and smoke.
4.	Contact address of the manufacturer According to Article 11(5):	KRUGEL EXIM spol. s r.o. Rybničná 38/H 831 06 Bratislava Slovak Republic
5.	Contact address of authorized representative: According to Article 12(2):	As per Item 4
6.	System of assessment and verification of constancy of performance of the construction product as set out in CPR EU No.305/2011 Annex V.	System 3
7.	Notified product certification body *Notified testing laboratory performed the determination of the product type on the basis of type testing (based on sampling carried out by the manufacturer), type calculation and tabulated values or descriptive documentation.*	1014

8. Declared performance

Essential characteristics	Performance	Harmonized technical standard
Reaction to fire	E_{ca}	EN 50575:2014
Release of dangerous substances	None	

9. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8
   This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Michal Sobolič, technical director
name and function

Bratislava, 7th November 2016
place and date of issue

signature

Example of labeling and cable marking:

CE
1014

KRUGEL EXIM spol. s r.o.
Rybničná 38/H, 831 06 Bratislava 35, Slovak Republic

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DoP: 00003

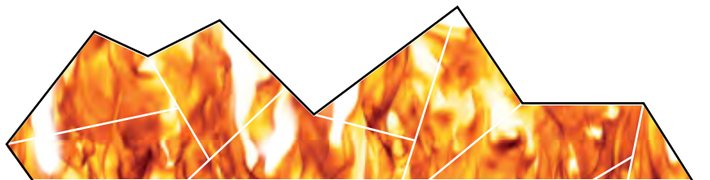
EN 50575: 2014

KE550HS23/1E-Eca

Supply of electricity and communications in buildings and other civil engineering works with the objective of limiting the generation and spread of fire and smoke.

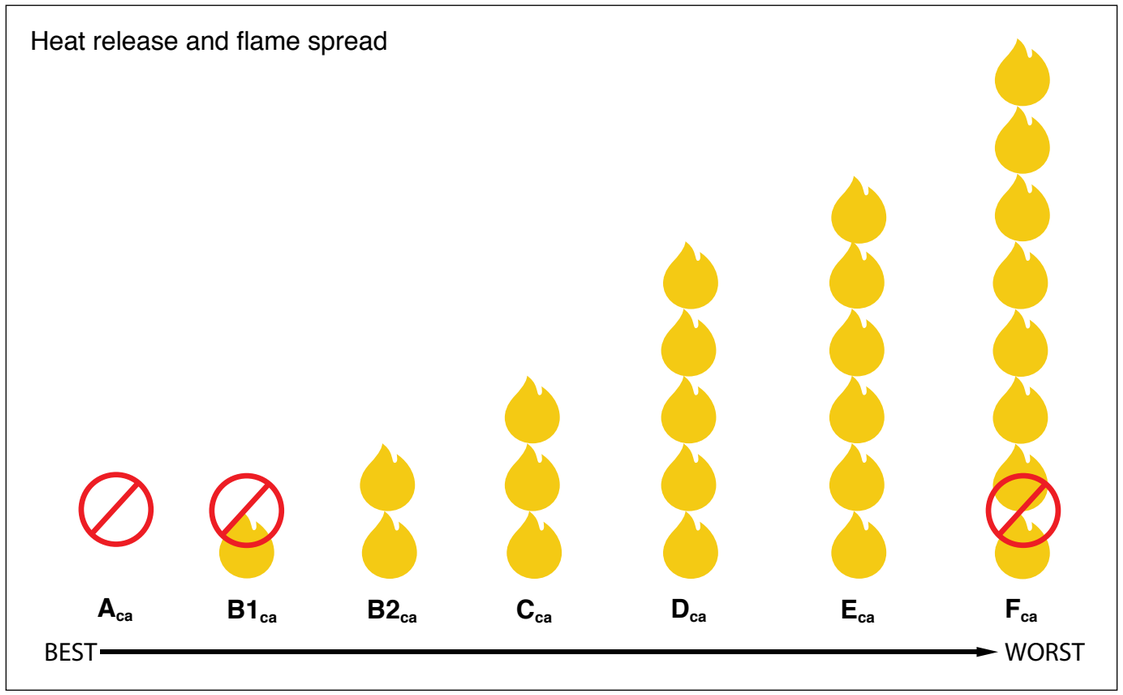
Reaction to Fire: E_{ca}
Dangerous Substances: None

LSOH, Euroclass Eca - 3P ver

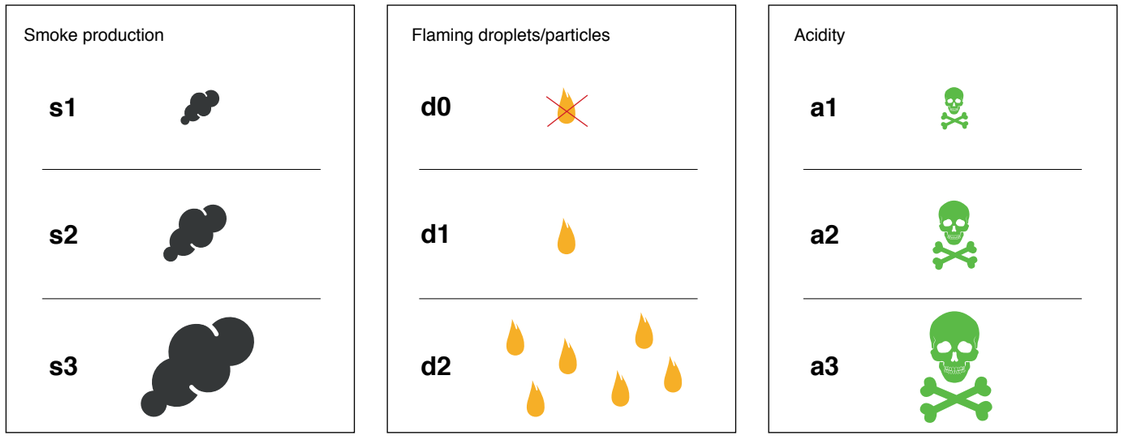


REACTION TO FIRE CLASSIFICATION

Euroclasses:



Additional classifications:



Notes:
1. *A_{ca} and $B1_{ca}$ euroclasses are not achieavable by copper and fibre optical cables used in structured cabling.*
2. *Indoor installation of F_{ca} euroclass is forbidden in structured cabling by EN 50174-1/A2:2015.*
3. *There is no additional classification specified for E_{ca} and F_{ca} euroclasses.*
4. *National authorities are responsible to specify the appropriate level of fire performance of cables in different environments of the building.*

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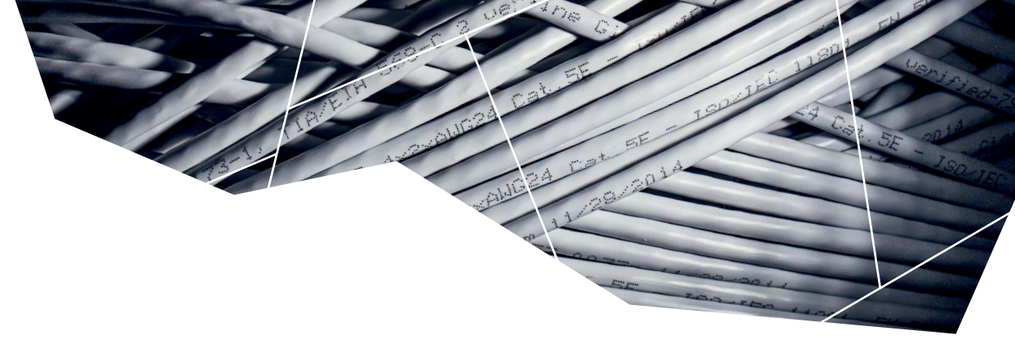

1.

COPPER CABLING

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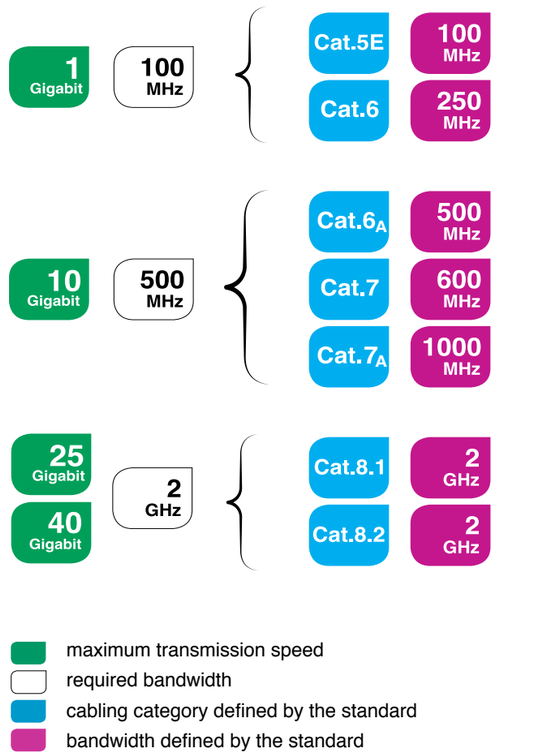
KELine®

Knowledge base

Recent results of high-speed protocol development have shown that it is the maximum transmission speed that determines performance of cabling, not the bandwidth. Also the maximum transmission speed is determined by the fastest protocol supported by cabling and the transmission protocol is essential in terms of requirements for cabling and its components.

Standardization of technologies and components designed for horizontal copper cabling has been completed, and therefore, the current situation is considered to remain unchanged in the near future.

International standards have defined five cabling categories for horizontal cabling - Cat.5E, Cat.6, Cat.6$_A$, Cat.7, Cat.7$_A$ and two categories for data centers - Cat.8.1, Cat.8.2. Despite of this fact there are only two transmission speeds for horizontal cabling - 1Gigabit/s (Cat.5E, Cat.6), 10Gigabit/s (Cat.6$_A$). In case of data centers the situation is different. There are only two transmission speeds for two categories - 25Gigabit/s and 40Gigabit/s but both of them can be transmitted on both categories (Cat.8.1 and Cat.8.2).



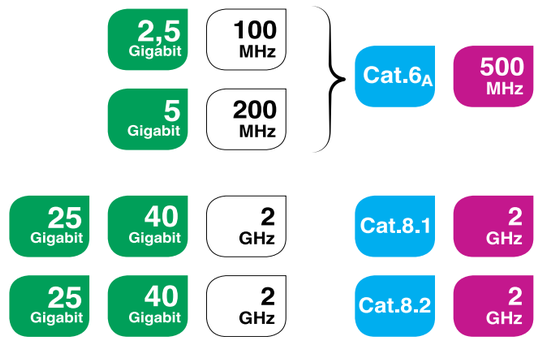
A transmission speed of 1Gigabit/s complies with the fastest protocol, 1000BASE-T, where a bandwidth of 100MHz is required for the transmission.
A transmission speed of 10Gigabit/s complies with the fastest protocol, 10GBASE-T, where a bandwidth of 500MHz is required for the transmission.

The diagram illustrates a relationship between the performance of structured cabling and the standardized categories.

From the picture, it is clear that the same performance can be achieved by several cabling categories.

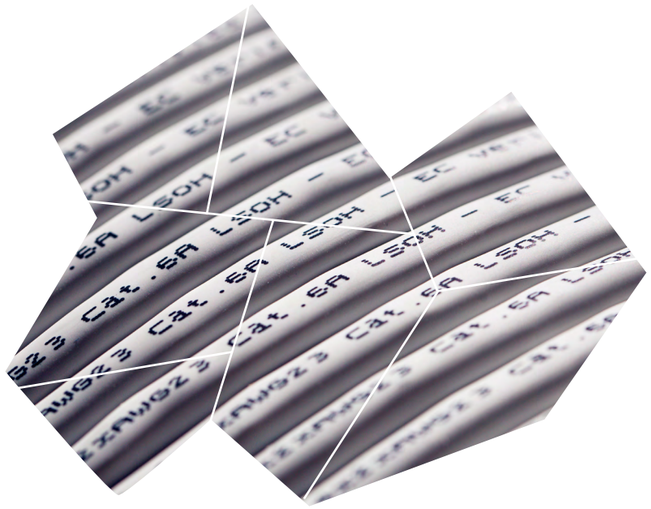
Cat.5E is efficient for networks with transmission speed of up to 1Gigabit/s.
Cat.6$_A$ is optimal for networks with transmission speed of up to 10Gigabit/s.

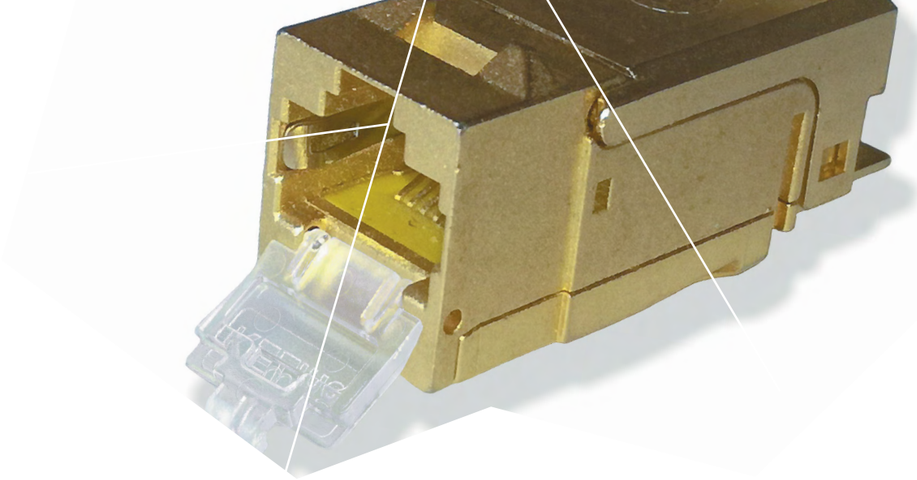
A required safety margin of 20% is already included in both 100MHz and 500MHz bandwidths required. Therefore it is not possible to utilize a bandwidth above this value, nor does it contribute to the enhancement of transmission reliability. **However, installing Cat.7 and Cat.7$_A$ interoperable cables is reasonable and appropriate due to their increased resistance to electromagnetic interference.**



In the year 2016 two new protocols 2,5GBASE-T and 5GBASE-T were standardized which should allow the transmission speed to be increased to 2,5 or 5Gigabit/s for structured cabling Cat.5E and Cat.6. However, tests on installed cablings showed that it was more of a wish than a real prospect. Because of Alien Crosstalk issue the minimum requirement for reliable transmission of 2,5GBASE-T and 5GBASE-T protocols is Cat.6$_A$ cabling. **Therefore, the only way to achieve a transmission speed higher than 1Gigabit/s is to install Cat.6$_A$ structured cabling.**

The IEEE 802.3 standardization committee finished a work on new protocols with a transmission speed of 25 and 40Gigabit/s. Due to these protocols, a new performance categories Cat.8.1 and Cat.8.2 have been introduced. The maximum transmission channel length is only 30m. Therefore, Cat.8.1 and Cat.8.2 are practically unusable in horizontal structured cabling. Even in data centers, for which these high-speed protocols have been developed, it would be hard to compete with fiber optics. In addition fiber optics generate less heat which is important since the cooling costs are one of the highest expenses in data centers.





1.

COPPER CABLING

Cat.8 system

Cat.8 system allows 40Gigabit/s transmission speed, guarantees transmission of all standardized protocols including 25GBASE-T and 40GBASE-T up to 30m and ensures a bandwidth of 2GHz.

40 Gigabit | Cat.8 | Cat.8.1 | Cat.8.2 | 2 GHz | HD HIGH DENSITY

Features of HD components

Double the number of ports in the patching field (48 ports in 1U) compared to standard solutions (24 ports in 1U). Save space in data cabinets and also increases usable space in server rooms and data centers.

Allow increase in number of ports in fully loaded data cabinets by exchanging 1U patch panels for 0,5U patch panels. Allow patching of a large number of ports in a single data cabinet.

Enable an easy release of patch cords in high density patch fields.

Use of trunk cables and cross-connect cables allow easy and fast implementation of any necessary changes in a data center without a need to outsource an installation capacity.

Guaranteed transmission characteristcs

Resistance against electromagnetic interference and Alien Crosstalk.

Cat.8 and Class I performance up to 30m (2 - connector channel).

Certificates, quality control and warranties

KE*Line*® Cat.8 system has been tested and certified by independent international laboratory GHMT.

A 25-year warranty is applied on all installations completed by a certified KE*Line*® partner.

40 Gigabit | Cat.8 | Cat.8.1 | 2 GHz

HD HIGH DENSITY

Keystone Jack HD, Category 8, RJ45/s

P/N: **KEJ-C8-S-HD**

- enables transmission of all high-speed protocols including 25GBASE-T and 40GBASE-T up to 30m
- guarantees a bandwidth of 2GHz
- backward compatible with Cat.6_A, Cat.6 and Cat.5E components
- fully shielded against Alien Crosstalk and electromagnetic interference
- suitable for data centers and backbone installations
- enables to install 24 modules into 0,5U and achieve a high density of up to 48 ports on 1U
- low profile design reduces the required installation depth of 5mm
- fast and easy installation
- dust-proof shutter
- nickel plated housing
- suitable for a wide range of outlets, duct and channel systems

Suitable for installing on cables with solid wires	from 0,51 to 0,64mm (AWG24 to AWG22)
Required installation depth for sockets with angled faceplates	10 - 30mm
Required installation depth for sockets with straight faceplates	30mm
Contact pin material	phosphor-bronze alloy coated with 50µ of gold
Insertion / extraction cycles	min. 750

This product is certified by GHMT international independent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0) for 2 - connector channel 30m.

40 Gigabit | Cat.8 | Cat.8.1 | 2 GHz

HD HIGH DENSITY

Patch panel HD, Category 8, 24xRJ45/s, silver, 0,5U, KEJ-C8-S-HD keystones included

P/N: **KEP-C8-S-HD-05**

- 24 keystone jacks included (KEJ-C8-S-HD)
- enables to install up to 48 ports on 1U
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (2 pcs)
- two earthing grips (on left and right sides)
- labeling strip KEP-PRINT-HD is not included (must be ordered separately)

Height	0,5U (22mm)
Height	19” (482,6mm)
Depth (including cable management)	100mm
Material	stainless steel
Colour	silver
Surface	glossy

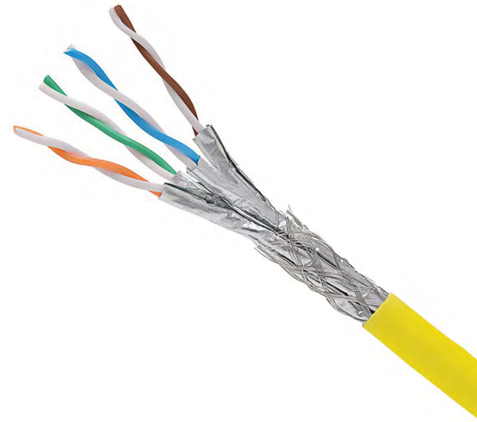
This product is certified by GHMT international independent laboratory according to ISO/IEC 11801-1:2017 (Ed. 1.0) for 2 - connector channel 30m.

40 Gigabit | Cat.8.1 | Cat.8.2 | 2 GHz | LS0H

D_{ca} s1,d1,a1

S/FTP cable 4x2xAWG22, Category 8, 2GHz, LSOH Euroclass D_{ca} - s1, d1, a1

P/N: **KE2000HS22** 500m on reel



- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- enables transmission of all high-speed protocols including 25GBASE-T and 40GBASE-T up to 30m
- tested in bandwidth up to 2GHz
- each pair individually shielded with AL/PET foil, overall copper braid, halogen-free sheath
- suitable for places with higher level of electromagnetic interference

Min. bending radius	installation 68mm
	operation 34mm
Max. tensile load	340N (34kg)
Temperature range	installation 0°C to +50°C
	operation -20°C to +60°C
Outer cable diameter	8,5mm
Copper conductor diameter	AWG22
NVP	73%
Reaction to fire	D_{ca} - s1, d1, a1
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive

This product is certified by GHMT international independent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0) for 2 - connector channel 30m.

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commission.

40 Gigabit | Cat.8 | Cat.8.1 | 2 GHz | LSFROH

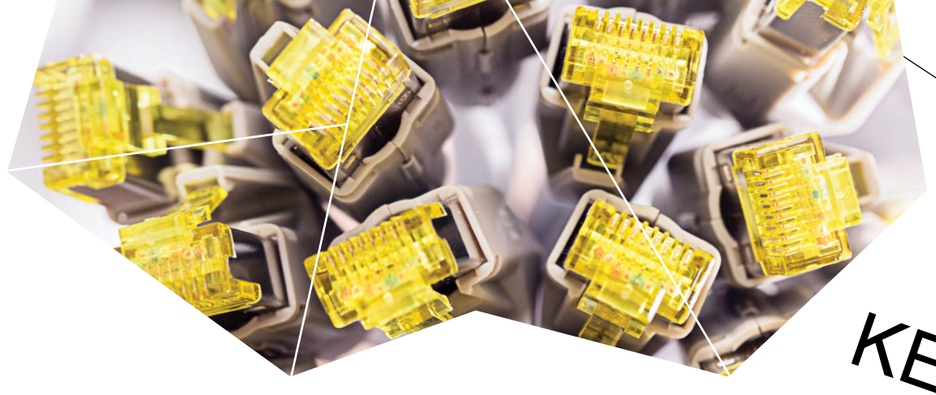
Patch cable STP, Category 8, LSFROH

P/N: **KEL-C8-P-005**	0,5m	P/N: **KEL-C8-P-015**	1,5m
P/N: **KEL-C8-P-010**	1m	P/N: **KEL-C8-P-020**	2m

- individually AL/PET foil shielded pairs from stranded wires, overall copper braid with halogen-free LSFROH sheath
- connector RJ45 complies with IEC 60603-7-81 standard by its dimensions and transmission features
- enables transmission of all high-speed protocols including 25GBASE-T and 40GBASE-T
- guarantees a bandwidth of 2GHz
- backward compatible with Cat.6_A, Cat.6 and Cat.5E components
- perfectly shielded against Alien Crosstalk and electromagnetic interference

Temperature range	-25°C to +60°C
Min. bending radius	25mm
Outer cable diameter	5,8mm
Copper conductor diameter	AWG27/7
Contact pin material	phosphor-bronze alloy coated with 50µ of gold
Insertion / extraction cycles	min. 750
Cable colour (standard)	gray
Boots colour (standard)	gray

This product is certified by GHMT international independent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0) for 2 - connector channel 30m.



KELine®

1.

COPPER CABLING

Cat.6$_A$ interoperable components

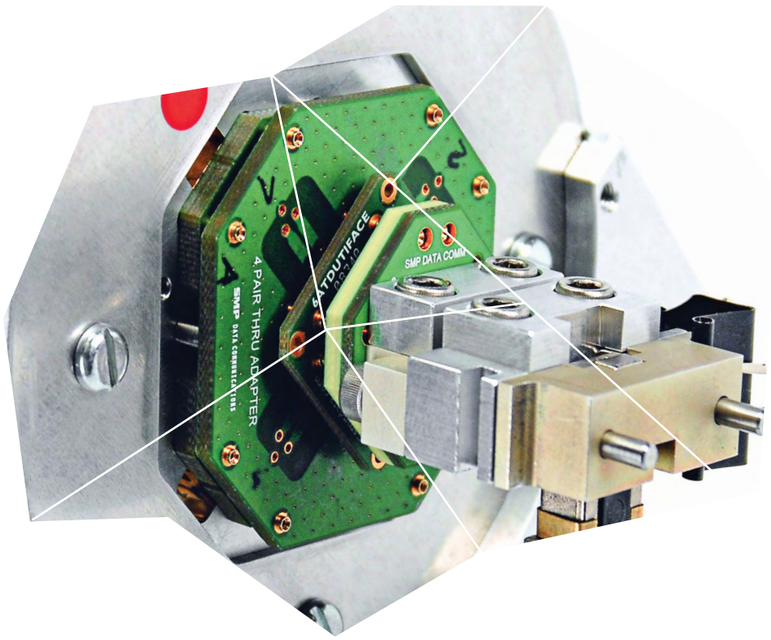
10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz | HD HIGH DENSITY

Cat 6$_A$ interoperable components allow 10Gigabit/s transmission speed, guarantee transmission of all standardized protocols including 10GBASE-T and ensure a bandwidth of 500MHz.

Due to the possibility of using products from different manufacturers and brands users and suppliers do not depend on a single purchase source.

These components offer a future-proof solution, which currently represents a technical peak that will dominate the horizontal cabling for the next 25 years.

This solution meets the expectations and needs of users with the highest demands on the quantity of transferred data.



Certificates, quality control and warranties

KE*Line*® Cat.6$_A$ interoperable components have been tested and certified by independent international laboratories GHMT, 3P and FORCE Technology.

3P and FORCE Technology carry out a quality control of mass-produced products on a regular basis. This includes: “sample test”, “maintenance testing”, “quality audit of the manufacturer’s quality assurance and production sites”.

25 YEAR WARRANTY

A 25-year warranty is applied on all installations completed by a certfied KE*Line*® partner.

Features of HD components

Double the number of ports in the patching field (48 ports in 1U) compared to standard solutions (24 ports in 1U). Save space in data cabinets and also increases usable space in server rooms and data centers.

Allow increase in number of ports in fully loaded data cabinets by exchanging 1U patch panels for 0,5U patch panels. Allow patching of a large number of ports in a single data cabinet.

Enable an easy release of patch cords in high density patch fields.

Use of trunk cables and cross-connect cables allow easy and fast implementation of any necessary changes in a data center without a need to outsource an installation capacity.

Definitions and features

Cat.6$_A$ interoperable component complies with requirements of Cat.6$_A$ performance defined in the recent international standard ISO/IEC 11801:2017 (Ed. 1.0) on a component level and possess a certificate confirming this.

Guaranteed transmission characteristcs

Resistance to electromagnetic interference and Alien Crosstalk.

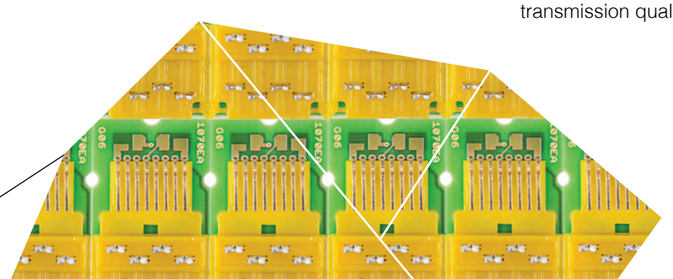
Cat.6$_A$ and Class E$_A$ for all standardized topologies (2 -, 3 - and 4 - connector channel, 2 - and 3 - connector permanent link).

Possibility to combine products of different manufacturers and brands.

Possibility to deploy Cat.7 and Cat.7$_A$ interoperable cables as well.

Safety margin of all parameters affecting transmission quality throughout the frequency range.

KELine®



10 Gigabit | Cat.6A Interoperable | 500 MHz | HD HIGH DENSITY | PoE Type 4

Keystone Jack HD, Category 6A, RJ45/s

P/N: **KEJ-C6A-S-HD**

- enables to install 24 modules into 0,5U and achieve a high density of up to 48 ports on 1U
- low profile design reduces the required installation depth of 5mm
- tool-free, fast and easy installation
- PoE Type 4 (100W) tested in GHMT laboratory
- enables transmission of all high-speed protocols including 10GBASE-T
- guarantees a bandwidth of 500MHz
- perfectly shielded against Alien Crosstalk and electromagnetic interference
- dust-proof shutter
- nickel plated housing
- suitable for a wide range of outlets, duct and channel systems (see page 94)
- applicable on cables with solid wires (guarantees of anti-corrosive a gas-tight joint)
- applicable on cables with stranded wires by using a special plastic insert (guarantees of anti-corrosive a gas-tight joint)

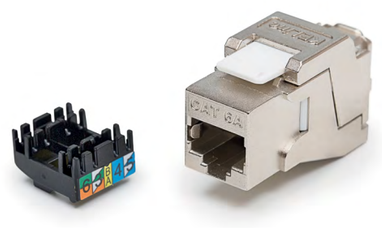
Suitable for installing on	cables with solid wires from 0,51 to 0,64mm (AWG24 to AWG22)
	cables with stranded wires (special plastic insert) from AWG27/7 to AWG26/7
Required installation depth	10 - 35mm - sockets with angled faceplates
	35mm - sockets with straight faceplates
Contact pin material	phosphor-bronze alloy coated with 50µ of gold
Insertion / extraction cycles	min. 750

This product is certified on a component level by GHMT international independent laboratory according to ISO/IEC 11801-1:2017 (Ed. 1.0), IEC 60603-7-51:2010.

10 Gigabit | Cat.6A Interoperable | 500 MHz | PoE Type 4

Keystone Jack, Category 6A, RJ45/s

P/N: **KEJ-C6A-S-10G**



- tool-free, fast and easy installation
- enables transmission of all high-speed protocols including 10GBASE-T
- guarantees a bandwidth of 500MHz
- PoE Type 4 (100W) tested in FORCE Technology laboratory
- perfectly shielded against Alien Crosstalk and electromagnetic interference
- suitable for a wide range of outlets, duct and channel systems (see page 94)
- applicable on cables with solid and stranded wires (guarantees anti-corrosive gas-tight joint)

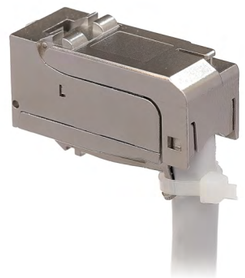
Suitable for installing on	cables with solid wires from 0,51 to 0,64mm (AWG24 to AWG22)
	cables with stranded wires from AWG26/7 to AWG24/7
Required installation depth	15 - 40mm - sockets with angled faceplates
	40mm - sockets with straight faceplates
Contact pin material	phosphor-bronze alloy coated with 50µ of gold
Insertion / extraction cycles	min. 750

This product is certified on a component level by FORCE Technology international independent laboratory according to ISO/IEC 11801-1-2:2017 (Ed. 1.0), IEC 60603-7-51:2010, EN 50173-1:2011, EN 50173-2:2007 amendment A1: 2010, ANSI/TIA-568-C.2: 2009, IEC 60512-99-002 (draft 48B/2531/CD).

Keystone Jack HD 90, Category 6A, RJ45/s

P/N: **KEJ-C6A-S-HD 90**

10 Gigabit | Cat.6A Interoperable | 500 MHz | PoE Type 4



- construction with vertical cable entry reduces the required installation depth by additional 5mm compared to KEJ-C6A-S-HD
- tool-free, fast and easy installation
- PoE Type 4 (100W) tested in GHMT laboratory
- enables transmission of all high-speed protocols including 10GBASE-T
- guarantees a bandwidth of 500MHz
- perfectly shielded against Alien Crosstalk and electromagnetic interference
- dust-proof shutter
- nickel plated housing
- suitable for a wide range of outlets, duct and channel systems (see page 94)
- applicable on cables with solid wires (guarantees of anti-corrosive a gas-tight joint)
- applicable on cables with stranded wires by using a special plastic insert (guarantees of anti-corrosive a gas-tight joint)

Suitable for installing on	cables with solid wires from 0,51 to 0,64mm (AWG24 to AWG22)
	cables with stranded wires (special plastic insert) from AWG 27/7 to AWG26/7
Required installation depth	10 - 30mm - sockets with angled faceplates
	30mm - sockets with straight faceplates
Contact pin material	phosphor-bronze alloy coated with 50µ of gold
Insertion / extraction cycles	min. 750

This product is certified on a component level by GHMT international independent laboratory according to ISO/IEC 11801:2017 (Ed. 1.0), IEC 60603-7-51:2010.

Modulo50 outlet, Category 6A, 2xRJ45/s, flush-mounted, KEJ-C6A-S-HD keystones included

10 Gigabit | Cat.6A Interoperable | 500 MHz

P/N: **601140-UP + KEJ-C6A-S-HD(2)**

- 2 keystone jacks included (KEJ-C6A-S-HD)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Colour	white RAL9010	
Surface	glossy	
Required installation depth	35mm	

Modulo50 outlet, Category 6A, 2xRJ45/s, wall-mounted, KEJ-C6A-S-HD keystones included

10 Gigabit | Cat.6A Interoperable | 500 MHz

P/N: **601140-AP + KEJ-C6A-S-HD(2)**

- 2 keystone jacks included (KEJ-C6A-S-HD)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Surface mounting box	80x80x40mm	
Colour	white RAL9010	
Surface	glossy	

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Modulo50 outlet, Category 6$_A$, 2xRJ45/s, flush-mounted, KEJ-C6A-S-10G keystones included

P/N: **601140-UP + KEJ-C6A-S-10G(2)**

- 2 keystone jacks included (KEJ-C6A-S-10G)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Colour	white RAL9010	
Surface	glossy	
Required installation depth	40mm	

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Modulo50 outlet, Category 6$_A$, 2xRJ45/s, wall-mounted, KEJ-C6A-S-10G keystones included

P/N: **601140-AP + KEJ-C6A-S-10G(2)**

- 2 keystone jacks included (KEJ-C6A-S-10G)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Surface mounting box	80x80x40mm	
Colour	white RAL9010	
Surface	glossy	

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Legrand® Mosaic™ compatible outlet module, Category 6$_A$, 2xRJ45/s, KEJ-C6A-S-HD keystones included

P/N: **601122 + KEJ-C6A-S-HD(2)**

- 2 keystone jacks included (KEJ-C6A-S-HD)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078814 + 080252, 078816 + 080253, 078818 + 080254

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	30mm

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Legrand® Mosaic™ compatible outlet module, Category 6$_A$, 2xRJ45/s, KEJ-C6A-S-10G keystones included

P/N: **601122 + KEJ-C6A-S-10G(2)**

- 2 keystone jacks included (KEJ-C6A-S-10G)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078814 + 080252, 078816 + 080253, 078818 + 080254

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	35mm

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Modulo45 outlet, Category 6$_A$, 2xRJ45/s, flush-mounted, KEJ-C6A-S-HD keystones included

P/N: **601120-UP + KEJ-C6A-S-HD(2)**

- 2 keystone jacks included (KEJ-C6A-S-HD)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Colour	white RAL9003	
Surface	glossy	
Required installation depth	25mm	

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Modulo45 outlet, Category 6$_A$, 2xRJ45/s, wall-mounted, KEJ-C6A-S-HD keystones included

P/N: **601120-AP + KEJ-C6A-S-HD(2)**

- 2 keystone jacks included (KEJ-C6A-S-HD)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Surface mounting box	81x81x40mm	
Colour	white RAL9003	
Surface	glossy	

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Modulo45 outlet, Category 6$_A$, 2xRJ45/s, floor / duct-mounted, KEJ-C6A-S-HD keystones included

P/N: **601120 + KEJ-C6A-S-HD(2)**

- 2 keystone jacks included (KEJ-C6A-S-HD)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078804 + 080252, 078806 + 080253, 078808 + 080254
- suitable for duct and channel systems of other manufacturers such as Legrand, OBO Bettermann, Elektraplan Niedax, etc

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	25mm

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Modulo45 outlet, Category 6$_A$, 2xRJ45/s, flush-mounted, KEJ-C6A-S-10G keystones included

P/N: **601120-UP + KEJ-C6A-S-10G(2)**

- 2 keystone jacks included (KEJ-C6A-S-10G)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Colour	white RAL9003	
Surface	glossy	
Required installation depth	30mm	

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Modulo45 outlet, Category 6$_A$, 2xRJ45/s, wall-mounted, KEJ-C6A-S-10G keystones included

P/N: **601120-AP + KEJ-C6A-S-10G(2)**

- 2 keystone jacks included (KEJ-C6A-S-10G)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Surface mounting box	81x81x40mm	
Colour	white RAL9003	
Surface	glossy	

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Modulo45 outlet, Category 6$_A$, 2xRJ45/s, floor / duct-mounted, KEJ-C6A-S-10G keystones included

P/N: **601120 + KEJ-C6A-S-10G(2)**

- 2 keystone jacks included (KEJ-C6A-S-10G)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078804 + 080252, 078806 + 080253, 078808 + 080254
- suitable for duct and channel systems of other manufacturers such as Legrand, OBO Bettermann, Elektraplan Niedax, etc

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	30mm

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Legrand® Valena™ compatible outlet module, Category 6$_A$, 2xRJ45/s, KEJ-C6A-S-10G keystones included

P/N: **601150 + KEJ-C6A-S-10G(2)**

- 2 keystone jacks included (KEJ-C6A-S-10G)
- straight entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Valena™ single and dual frames
  P/N: 774451, 774452, 774461, 774462, 770491, 770492

** Legrand® single or double frame must be ordered separately*

Dimensions	58x52mm
Colour	white RAL9003
Surface	glossy
Required installation depth	40mm

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

DIN rail keystone holder, Category 6$_A$, 1xRJ45/s, KEJ-C6A-S-HD keystone included

P/N: **HN-DIN-C6AHD**

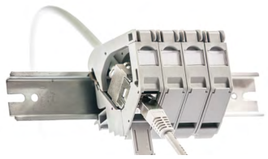
- 1 keystone jack included (KEJ-C6A-S-HD)
- designed for DIN rails in residential and industrial electric distribution (home networking and industrial Ethernet)
- port protected with a dust-proof shutter

10 Gigabit | Cat.6$_A$ interoperable | 500 MHz

DIN rail keystone holder, Category 6$_A$, 1xRJ45/s, KEJ-C6A-S-10G keystone included

P/N: **HN-DIN-C6AS**

- 1 keystone jack included (KEJ-C6A-S-10G)
- designed for DIN rails in residential and industrial electric distribution (home networking and industrial Ethernet)
- port protected with a dust-proof shutter



10 Gigabit | Cat.6$_A$ interoperable | 500 MHz | HD HIGH DENSITY

Patch panel HD, Category 6$_A$, 24xRJ45/s, silver, 0,5U, KEJ-C6A-S-HD keystones included

P/N: **KEP-C6A-S-HD-05**

- 24 keystone jacks included (KEJ-C6A-S-HD)
- enables to install up to 48 ports on 1U
- designed for 19” cabinets
- integrated cable management
- cable ties (24 pcs)
- set of M6 screws and captive nuts (2 pcs)
- two earthing grips (on left and right sides)
- labeling strip KEP-PRINT-HD is not included (must be ordered separately)

Height	0,5U (22mm)
Width	19” (482,6mm)
Depth (including cable management)	100mm
Material	stainless steel
Colour	silver
Surface	glossy

HD HIGH DENSITY

Labeling strip for KEP-C6A-S-HD-05

P/N: **KEP-PRINT-HD**

- used for numerical marking of ports 1-24 for patch panel KEP-C8-S-HD-05, KEP-C6A-S-HD-05 and KEP-EMPTY-HD
- enables individual port identification by label printer with a tape width of 6mm

Height	0,5U (22mm)
Width	19” (482,6mm)
Description field	430 x 6mm
Material	stainless steel
Colour	silver
Surface	glossy

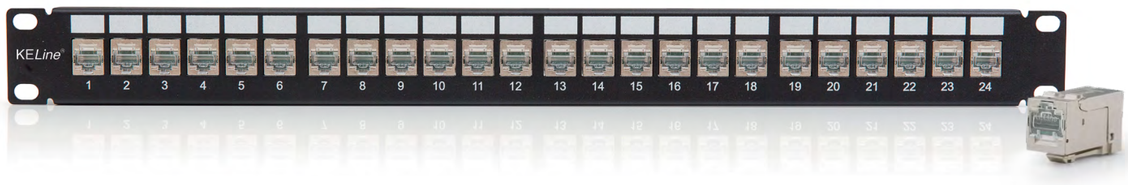
10 Gigabit | Cat.6$_A$ interoperable | 500 MHz

Patch panel, Category 6$_A$, 24xRJ45/s, KEJ-C6A-S-HD keystones included

P/N: **KEP-C6A-S-HD**

- 24 keystone jacks included (KEJ-C6A-S-HD)
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (4 pcs)
- grounding screw and washer (1 pc)

Height		1U (44,5mm)
Width		19” (482,6mm)
Depth (including cable management)		152mm
Material	front face	steel
	cable management	nickel-plated steel, corrosion-resistant
Colour		black RAL9005
Surface		structured, matt



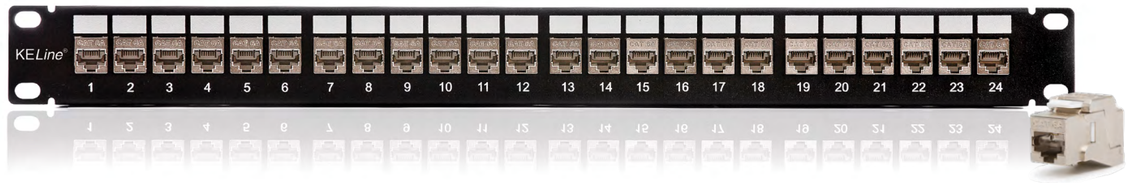
10 Gigabit | Cat.6$_A$ interoperable | 500 MHz

Patch panel, Category 6$_A$, 24xRJ45/s, KEJ-C6A-S-10G keystones included

P/N: **KEP-C6A-S-10G**

- 24 keystone jacks included (KEJ-C6A-S-10G)
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (4 pcs)
- grounding screw and washer (1 pc)

Height		1U (44,5mm)
Width		19” (482,6mm)
Depth (including cable management)		152mm
Material	front face	steel
	cable management	nickel-plated steel, corrosion-resistant
Colour		black RAL9005
Surface		structured, matt



10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Patch panel, Category 6$_A$, 24xRJ45/s, silver, KEJ-C6A-S-HD keystones included

P/N: **KEP-C6A-S-HD-NP**

- 24 keystone jacks included (KEJ-C6A-S-HD)
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (4 pcs)
- grounding screw and washer (1 pc)

Height	1U (44,5mm)
Width	19” (482,6mm)
Depth (including cable management)	152mm
Material	nickel-plated steel, corrosion-resistant
Colour	silver
Surface	plain, glossy

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

Patch panel, Category 6$_A$, 24xRJ45/s, silver, KEJ-C6A-S-10G keystones included

P/N: **KEP-C6A-S-10G-NP**

- 24 keystone jacks included (KEJ-C6A-S-10G)
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (4 pcs)
- grounding screw and washer (1 pc)

Height	1U (44,5mm)
Width	19” (482,6mm)
Depth (including cable management)	152mm
Material	nickel-plated steel, corrosion-resistant
Colour	silver
Surface	plain, glossy

10 Gigabit | Cat.6$_A$ Interoperable | 550 MHz | LS0H

B2$_{ca}$ s1,d1,a1

STP cable 4x2xAWG23, Category 6$_A$, 550MHz, LSOH Euroclass B2$_{ca}$ - s1, d1, a1

P/N: **KE550HS23/1E-B2ca** 500m on reel

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- each pair individually shielded with AL/PET foil, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- tested in bandwidth up to 550MHz

Min. bending radius	installation	60mm
	operation	30mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	7,5mm	
Copper conductor diameter	AWG23	
NVP	75%	
Reaction to fire	B2$_{ca}$ - s1, d1, a1	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by FORCE Technology international third party laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0), ISO/IEC 11801-2:2017 (Ed.1.0), IEC 61156-5: 2012 (Ed.2.1), EN 50173-1: 2011, EN 50173-2: 2007 Amd.1: 2010, EN 50288-10-1: 2012, ANSI/TIA-568-C.2: 2009, IEC 60332-1-1: 2015 (Ed.1.1), IEC 60332-1-2: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1), IEC 60754-2: 2011 (Ed.2.0).

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

10 Gigabit | Cat.6$_A$ Interoperable | 550 MHz | LS0H

D$_{ca}$ s2,d1,a1

STP cable 4x2xAWG23, Category 6$_A$, 550MHz, LSOH Euroclass D$_{ca}$ - s2, d1, a1

P/N: **KE550HS23/1E-Dca** 500m on reel

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- each pair individually shielded with AL/PET foil, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- tested in bandwidth up to 550MHz

Min. bending radius	installation	56mm
	operation	28mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	7,0mm	
Copper conductor diameter	AWG23	
NVP	75%	
Reaction to fire	D$_{ca}$ - s2, d1, a1	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0), IEC 61156-5: 2012 (Ed.2.1), EN 50173-1: 2011, EN 50288-10-1: 2012, ANSI/TIA-568-C.2: 2009, IEC 60332-1-2: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1), IEC 60754-2: 2011 (Ed.2.0)

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

10 Gigabit | Cat.6$_A$ Interoperable | 550 MHz | LS0H | E$_{ca}$

STP cable 4x2xAWG23, Category 6$_A$, 550MHz, LSOH Euroclass E$_{ca}$

P/N: **KE550HS23/1E-Eca** 500m on reel

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- each pair individually shielded with AL/PET foil, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- tested in bandwidth up to 550MHz

Min. bending radius	installation	56mm
	operation	28mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	7,0mm	
Copper conductor diameter	AWG23	
NVP	75%	
Reaction to fire	E$_{ca}$	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801:2017 (Ed.1.0), IEC 61156-5: 2012 (Ed.2.1),EN 50173-1: 2011, EN 50288-10-1: 2012, ANSI/TIA-568-C.2: 2009, IEC 60332-1-1: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1), IEC 60754-2: 2011 (Ed.2.0).

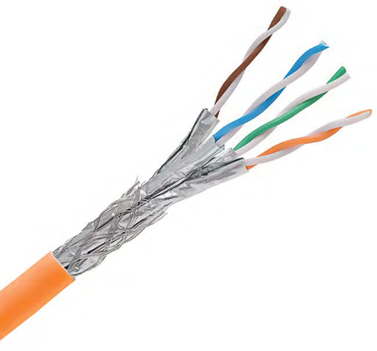
The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

10 Gigabit | Cat.7 | 1000 MHz | LS0H | B2$_{ca}$ s1a,d1,a1

S/FTP cable 4x2xAWG23, Category 7, 1000MHz, LSOH Euroclass B2$_{ca}$ - s1a, d1, a1

P/N: **KE1000HS23-B2ca** 500m on reel

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- each pair individually shielded with AL/PET foil, overall copper braid, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- enables transmission of non-standard protocols used in hospitals, residential areas (home networking) etc.
- tested in bandwidth up to 1000MHz
- suitable for places with higher level of electromagnetic interference



Min. bending radius	installation	60mm
	operation	30mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	7,8mm	
Copper conductor diameter	AWG23	
NVP	78%	
Reaction to fire	B2$_{ca}$ - s1a, d1, a1	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by FORCE Technology international independent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0), ISO/IEC 11801-2:2017 (Ed.1.0), EC 61156-5: 2012 (Ed.2.1), EN 50173-1: 2011, EN 50173-2: 2007 Amd.1: 2010, EN 50288-4-1: 2013, IEC 60332-1-1: 2015 (Ed.1.1), IEC 60332-1-2: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1), IEC 60754-2: 2011 (Ed.2.0).

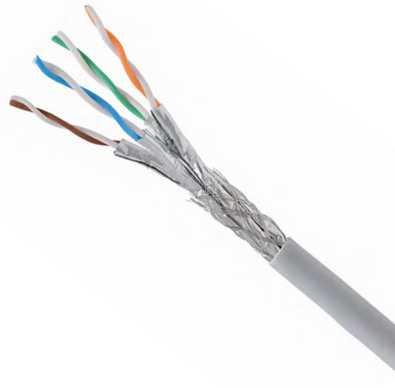
The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

10 Gigabit | Cat.7 | 1000 MHz | LS0H | D$_{ca}$ s2,d1,a1

S/FTP cable 4x2xAWG23, Category 7, 1000MHz, LSOH Euroclass D$_{ca}$ - s2, d1, a1

P/N: **KE1000HS23-Dca** 500m on reel

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- each pair individually shielded with AL/PET foil, overall copper braid, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- enables transmission of non-standard protocols used in hospitals, residential areas (home networking) etc.
- tested in bandwidth up to 1000MHz
- suitable for places with higher level of electromagnetic interference



Min. bending radius	installation	60mm
	operation	30mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	7,6mm	
Copper conductor diameter	AWG23	
NVP	78%	
Reaction to fire	D$_{ca}$ - s2, d1, a1	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by FORCE Technology international independent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0), ISO/IEC 11801-2:2017 (Ed.1.0), IEC 61156-5: 2012 (Ed.2.1), EN 50173-1: 2011, EN 50173-2: 2007 Amd.1: 2010, EN 50288-4-1: 2013, IEC 60332-1-1: 2015 (Ed.1.1), IEC 60332-1-2: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1),IEC 60754-2: 2011 (Ed.2.0).

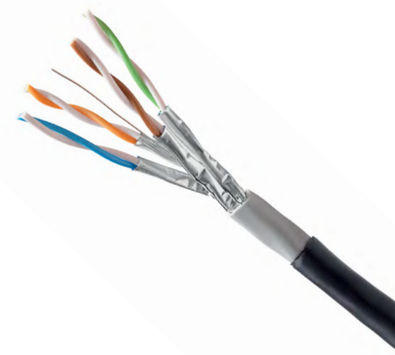
The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

10 Gigabit | Cat.6$_A$ Interoperable | 550 MHz | OUTDOOR

Outdoor / direct burial STP cable 4x2xAWG23, Category 6$_A$, 550MHz, with double-sheath

P/N: **KE550HS23OUT** 500m on reel

- double sheath with total thickness of 1,7mm
- extremely resistant to mechanical damage and environmental influences
- resistant to moisture, water and UV radiation
- cable core is identical with construction of KE550HS23/1E-Eca
- enables transmission of all high-speed protocols including 10GBASE-T
- tested in bandwidth up to 550MHz



Min. bending radius	installation	72mm
	operation	36mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +70°C
Outer cable diameter	8,8mm	
Outer PE sheath thickness	0,9mm	
Inner sheath thickness	0,8mm	
Copper conductor diameter	0,56mm (AWG23)	
NVP	75%	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0), IEC 61156-5: 2012 (Ed.2.1), EN 50173-1: 2011, EN 50288-10-1: 2012, ANSI/TIA-568-C.2: 2009, IEC 60332-1-2: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1), IEC 60754-2: 2011 (Ed.2.0).

10 Gigabit | Cat.6A Interoperable | 500 MHz | LSOH | HD HIGH DENSITY

Trunk cable /jack-jack/ STP 6x4x2xAWG23, Category 6A, 500MHz, LSOH

P/N: **KE-TC6AHD-050**	length 5m	P/N: **KE-TC6AHD-250**	length 25m
P/N: **KE-TC6AHD-100**	length 10m	P/N: **KE-TC6AHD-300**	length 30m
P/N: **KE-TC6AHD-150**	length 15m	P/N: **KE-TC6AHD-350**	length 35m
P/N: **KE-TC6AHD-200**	length 20m	P/N: **KE-TC6AHD-400**	length 40m

- allows easy and fast implement of any necessary changes in a data center without a need to outsource an installation capacity
- simplifies and streamlines a management of cable routes
- enables transmission of all high-speed protocols including 10GBASE-T
- cable characterized up to 550MHz
- complies with the requirements for fire prevention arrangements in buildings with higher concentration of people

Min. bending radius	installation	200mm
	operation	100mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Cable core	STP 6x4x2xAWG23	
Outer cable diameter	25mm	
Copper conductor diameter	AWG23	

All components of this product are certified on a component level by GHMT and 3P international independent laboratories according to: ISO/IEC 11801-1:2017 (Ed. 1.0), IEC 60603-7-51:2010 for keystone and ISO/IEC 11801-1:2017 (Ed.1.0), Category 6A, EN 50173-1: 2011, ANSI/TIA-568-C.2: 2009 Category 6A, IEC 61156-5: 2012 (Ed.2.1), EN 50288-10-1: 2012. IEC 60332-1-2: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1), IEC 60754-2: 2011 (Ed.2.0) for cable.
Mass production of this product is carried out under the supervision of 3P laboratories.

10 Gigabit | Cat.6A Interoperable | 500 MHz | LSOH | HD HIGH DENSITY

Trunk cable /jack-plug/ 6x4x2xAWG27, Category 6A, 500MHz, LSOH

P/N: **KE-CC6AHD-050**	length 5m	P/N: **KE-CC6AHD-250**	length 25m
P/N: **KE-CC6AHD-100**	length 10m	P/N: **KE-CC6AHD-300**	length 30m
P/N: **KE-CC6AHD-150**	length 15m	P/N: **KE-CC6AHD-350**	length 35m
P/N: **KE-CC6AHD-200**	length 20m	P/N: **KE-CC6AHD-400**	length 40m

- designed for cross-connect links in a data center
- allows easy and fast implement of any necessary changes in a data center without a need to outsource an installation capacity
- simplifies and streamlines a management of cable routes
- enables transmission of all high-speed protocols including 10GBASE-T
- guarantees a bandwidth of 500MHz
- complies with the requirements for fire prevention arrangements in buildings with higher concentration of people

Min. bending radius	installation	150mm
	operation	90mm
Max. tensile load	100N (10kg)	
Temperature range	operation	-20°C to +60°C
Cable core	STP 6x4x2xAWG27/7	
Outer cable diameter	15,5mm	
Copper conductor diameter	AWG27/7	

All components of this product are certified on a component level by GHMT and FORCE Technology international independent laboratories according to: ISO/IEC 11801-1:2017 (Ed. 1.0), IEC 60603-7-51:2010 for keystone and ISO/IEC 11801-1:2017 (Ed.1.0) / ISO/IEC 11801-2:2017 (Ed.1.0), EN 50173-1:2018 / 50173-2:2018, TIA-568.2-D:2018, IEC 61935-2:2010 (Ed. 3.0) for patch cable.
Mass production of this product is carried out under the supervision of FORCE Technology laboratories.

Patch cable STP, Category 6A , LSOH

P/N: **KEL-C6A-P-005-xx**	length 0,5m	P/N: **KEL-C6A-P-050-xx**	length 5m
P/N: **KEL-C6A-P-010-xx**	length 1m	P/N: **KEL-C6A-P-070-xx**	length 7m
P/N: **KEL-C6A-P-015-xx**	length 1,5m	P/N: **KEL-C6A-P-100-xx**	length 10m
P/N: **KEL-C6A-P-020-xx**	length 2m	P/N: **KEL-C6A-P-150-xx**	length 15m
P/N: **KEL-C6A-P-030-xx**	length 3m	P/N: **KEL-C6A-P-200-xx**	length 20m

Note: Non-standard patch cable length must be specified in the order.
xx - patch cable colour: gray — without marking; blue — -BL; green — -GN; red — -RD; yellow — -YE; black — -BK

10 Gigabit | Cat.6A Interoperable | 500 MHz | LSOH

- individually shielded pairs with stranded wires, halogen-free sheath
- connector RJ45 with patented multi-layered arrangement of contacts
- connector RJ45 complies with IEC 60603-7 standard by its dimensions and transmission features
- enables transmission of all high-speed protocols including 10GBASE-T
- guarantees a bandwidth of 500MHz
- perfectly shielded against Alien Crosstalk and electromagnetic interference
- complies with the requirements for fire prevention arrangements in buildings with higher concentration of people

Temperature range	-25°C to +60°C
Min. bending radius	25mm
Outer cable diameter	5,8mm
Copper conductor diameter	AWG27/7
Contact pin material	phosphor-bronze alloy coated with 50µ of gold
Insertion / extraction cycles	min. 750

colour variants:

P/N: KEL-C6A-P-xxx

P/N: KEL-C6A-P-xxx-BL

P/N: KEL-C6A-P-xxx-GN

P/N: KEL-C6A-P-xxx-RD

P/N: KEL-C6A-P-xxx-YE

P/N: KEL-C6A-P-xxx-BK

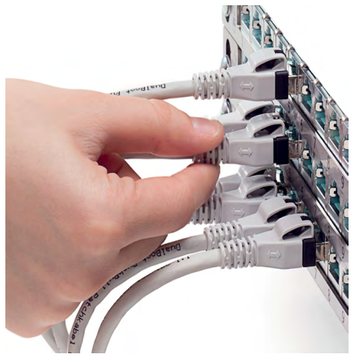
This product is certified on a component level by FORCE Technology international indepenent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0) / ISO/IEC 11801-2:2017 (Ed.1.0), EN 50173-1:2018 / EN 50173-2:2018, TIA-568.2-D:2018, IEC 61935-2:2010 (Ed. 3.0) (Transmission requirements). Mass production of this product is carried out under the supervision of FORCE Technology laboratory.

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz | LSOH | HD HIGH DENSITY

HD Patch cable STP, Category 6$_A$, LSOH

P/N: **KEL-C6A-P-005HD**	length 0,5m	P/N: **KEL-C6A-P-050HD**	length 5m
P/N: **KEL-C6A-P-010HD**	length 1m	P/N: **KEL-C6A-P-070HD**	length 7m
P/N: **KEL-C6A-P-015HD**	length 1,5m	P/N: **KEL-C6A-P-100HD**	length 10m
P/N: **KEL-C6A-P-020HD**	length 2m	P/N: **KEL-C6A-P-150HD**	length 15m
P/N: **KEL-C6A-P-030HD**	length 3m	P/N: **KEL-C6A-P-200HD**	length 20m

- “Push & Pull” boots secure easy connection and disconnection
- suitable to use even in high-density patch fields
- individually shielded pairs with stranded wires, halogen-free sheath
- connector RJ45 complies with IEC 60603-7 standard by its dimensions and transmission features
- enables transmission of all high-speed protocols including 10GBASE-T
- guarantees a bandwidth of 500MHz
- perfectly shielded against Alien Crosstalk and electromagnetic interference
- complies with the requirements for fire prevention arrangements in buildings with higher concentration of people



Temperature range	-25°C to +60°C	
Min. bending radius	25mm	
Outer cable diameter	5,8mm	
Copper conductor diameter	AWG27/7	
Contact pin material	phosphor-bronze alloy coated with 50µ of gold	
Insertion / extraction cycles	min. 750	
Colour (standard)	cable	gray RAL7035
	boots	gray RAL7035

Toolless field termination RJ45/s connector for Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables

10 Gigabit | Cat.6A system | 500 MHz

P/N: **KE-FT45-C6AS**

- direct termination on Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables
- tool-free, fast and easy installation
- connection of IP cameras and wireless devices without the need to use outlets and patch cords
- enables transmission of all high-speed protocols including 10GBASE-T within the system Cat.6A
- guarantees a bandwidth of 500MHz within the system Cat.6A
- perfectly shielded against Alien Crosstalk and electromagnetic interference

Suitable for installing on	cables with solid wires from AWG26 to AWG22
	cables with stranded wires from AWG27 to AWG22
	from 6 to 9mm

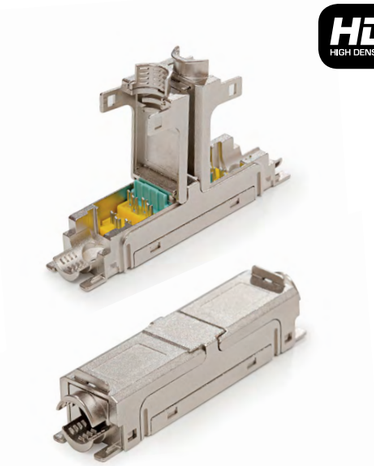
Connection module HD, Category 6$_A$

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz | HD HIGH DENSITY

P/N: **KE-EXT-HD**

- designed for reconnection of damaged cables or in case of a need to extend the link
- low profile design
- tool-free, fast and easy installation
- enables transmission of all high-speed protocols including 10GBASE-T
- guarantees a bandwidth of 500MHz
- perfectly shielded against Alien Crosstalk and electromagnetic interference
- applicable on cables with solid wires

Suitable for cables with	solid wire from AWG24 to AWG22
	outer diameter 5 - 9,5mm
Contact pin material	phosphor-bronze alloy coated with 50µ of gold



LSA connection module

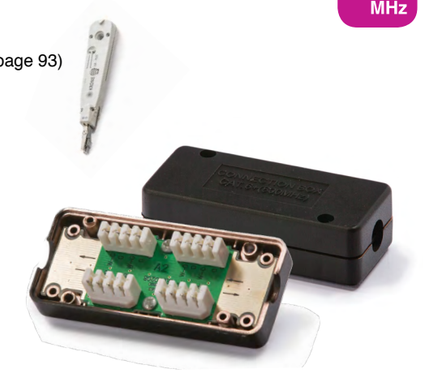
600 MHz

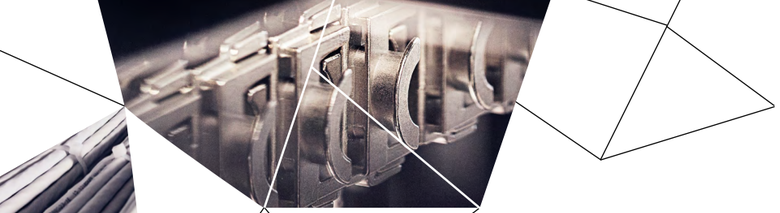
P/N: **KE-AD-C61S**

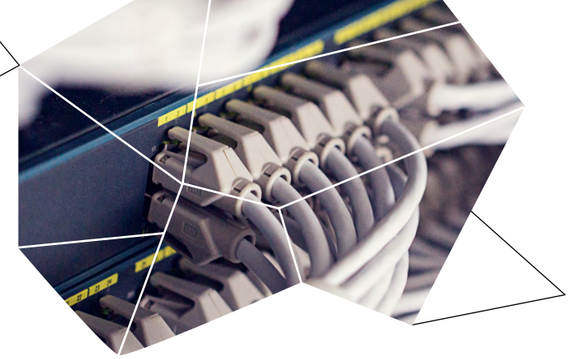
- designed for reconnection of damaged cables of Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables or in case of a need to extend the link
- LSA terminals ensuring connection of cables
- guarantees a bandwidth of 600MHz
- performance category depending on a specific topology and network configuration

Suitable for cables with	solid wire from 0,40mm to 0,64mm (AWG26 to AWG22)
	outer diameter from 4,5 to 7,9mm

(page 93)







1.

COPPER CABLING

Cat.6A / Class E_A system

10 Gigabit

Cat.6A system

500 MHz

Cat.6A / Class E_A system allows 10Gigabit/s transmission speed, guarantees transmission of all standardized protocols including 10GBASE-T and ensures a bandwidth of 500MHz.

This system is disadvantaged from a long-term perspective as only components from a certain manufacturer are suitable for this solution.

From 2006 to 2010, Cat.6A / Class E_A system played a major role, as it was the only way to implement cabling with performance of 10Gigabit/s.

This solution has been surpassed by the advantages of Cat.6_A interoperable components.

Cat.6A / Class E_A system meets the expectations and needs of users with the highest demands on the quantity of transferred data.

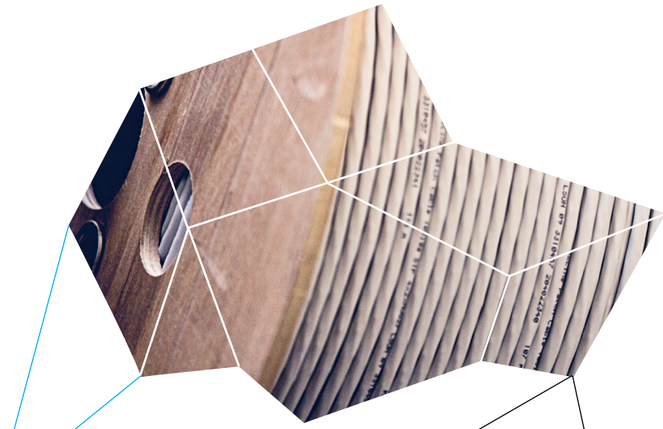
Definitions and features

Cat.6A / Class E_A system is a group of products, creating a channel that complies with requirements of Cat.6A and Class E_A performance defined in the U.S. standard ANSI/TIA 568-C.2 and international standard ISO/IEC 11801-1:2017 (Ed. 1.0) on the channel level. The certificate confirming compliance with the standards lists the tested topology and all the components. Certification on permanent link level for Cat.6A / Class E_A system is not sufficient and it's for informational purposes only.

Guaranteed transmission characteristcs

Resistance to electromagnetic interference and Alien Crosstalk.

Cat.6A and Class E_A performance for channel with topology and components mentioned in related certificate.



Certificates, quality control and warranties

KE*Line*® Cat.6A system is certified for 2-connector channel by 3P international independent laboratory according to IEEE P802.3an Class E_A ISO/IEC 11801-1:2017 (Ed. 1.0), ISO/IEC 11801-2:2017 (Ed. 1.0), EN 50173-1:2011, Category 6A ANSI/TIA-568-C.2: 2009.

Note: Installation cables and patch cables used in the KE*Line*® Cat.6A / Class E_A system are also Cat.6_A interoperable components certified on a component level.

25 YEAR WARRANTY

A 25-year warranty is applied on all installations completed by a certfied KELine® partner.

10 Gigabit | Cat.6A system | 500 MHz

Keystone Jack, Category 6A, RJ45/s

P/N: **KEJ-CEA-S-10G**

- tool-free, fast and easy installation
- enables transmission of all high-speed protocols including 10GBASE-T within the system
- guarantees a bandwidth of 500MHz within the system
- perfectly shielded against Alien Crosstalk and electromagnetic interference
- suitable for a wide range of outlets, duct and channel systems (see page 94)

Suitable for installing on	cables with solid wires from 0,51 to 0,64mm (AWG24 to AWG22)
Required installation depth	15 to 40mm sockets with angled faceplates 40mm - sockets with straight faceplates
Contact pin material	phosphor-bronze alloy coated with 6µ of gold
Insertion / extraction cycles	min. 750

THIRD PARTY TESTING 3P

KELine® Cat.6A system is certified for 2 - connector channel by 3P international independent laboratory according to IEEE P802.3an Class E_A ISO/IEC 11801-1: 2017 (Ed.1.0), ISO/IEC 11801-2: 2017 (Ed.1.0), EN 50173-1: 2011, Category 6A ANSI/TIA-568-C.2: 2009.

Legrand® Mosaic™ compatible outlet module, Category 6A, 2xRJ45/s, keystones included

10 Gigabit | Cat.6A system | 500 MHz

P/N: **601122 + KEJ-CEA-S-10G(2)**

- 2 keystone jacks included (KEJ-CEA-S-10G)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078814 + 080252, 078816 + 080253, 078818 + 080254

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	35mm

Modulo50 outlet, Category 6A, 2xRJ45/s, flush-mounted, keystones included

10 Gigabit | Cat.6A system | 500 MHz

P/N: **601140-UP + KEJ-CEA-S-10G(2)**

- 2 keystone jacks included (KEJ-CEA-S-10G)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Colour	white RAL9010	
Surface	glossy	
Required installation depth	40mm	

Modulo45 outlet, Category 6A, 2xRJ45/s, flush-mounted, keystones included

10 Gigabit | Cat.6A system | 500 MHz

P/N: **601120-UP + KEJ-CEA-S-10G(2)**

- 2 keystone jacks included (KEJ-CEA-S-10G)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Colour	white RAL9003	
Surface	glossy	
Required installation depth	30mm	

Modulo50 outlet, Category 6A, 2xRJ45/s, wall-mounted, keystones included

10 Gigabit | Cat.6A system | 500 MHz

P/N: **601140-AP + KEJ-CEA-S-10G(2)**

- 2 keystone jacks included (KEJ-CEA-S-10G)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Surface mounting box	80x80x40mm	
Colour	white RAL9010	
Surface	glossy	

Modulo45 outlet, Category 6A, 2xRJ45/s, wall-mounted, keystones included

10 Gigabit | Cat.6A system | 500 MHz

P/N: **601120-AP + KEJ-CEA-S-10G(2)**

- 2 keystone jacks included (KEJ-CEA-S-10G)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Surface mounting box	81x81x40mm	
Colour	white RAL9003	
Surface	glossy	

10 Gigabit | Cat.6A system | 500 MHz

Modulo45 outlet, Category 6A, 2xRJ45/s, floor / duct-mounted, keystones included

P/N: **601120 + KEJ-CEA-S-10G(2)**

- 2 keystone jacks included (KEJ-CEA-S-10G)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078804 + 080252, 078806 + 080253, 078808 + 080254
- suitable for duct and channel systems of other manufacturers such as Legrand, OBO Bettermann, Elektraplan Niedax, etc

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	30mm

10 Gigabit | Cat.6A system | 500 MHz

Legrand® Valena™ compatible outlet module, Category 6A, 2xRJ45/s, keystones included

P/N: **601150 + KEJ-CEA-S-10G(2)**

- 2 keystone jacks included (KEJ-CEA-S-10G)
- straight entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Valena™ single and dual frames
  P/N: 774451, 774452, 774461, 774462, 770491, 770492

** Legrand® single or double frame must be ordered separately*

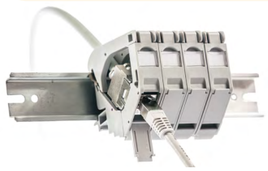
Dimensions	58x52mm
Colour	white RAL9003
Surface	glossy
Required installation depth	40mm

10 Gigabit | Cat.6A system | 500 MHz

DIN rail keystone holder, Category 6A, 1xRJ45/s, keystone included

P/N: **HN-DIN-CEA**

- 1 keystone jack included (KEJ-CEA-S-10G)
- designed for DIN rails in residential and industrial electric distribution (home networking and industrial Ethernet)
- port protected with a dust-proof shutter



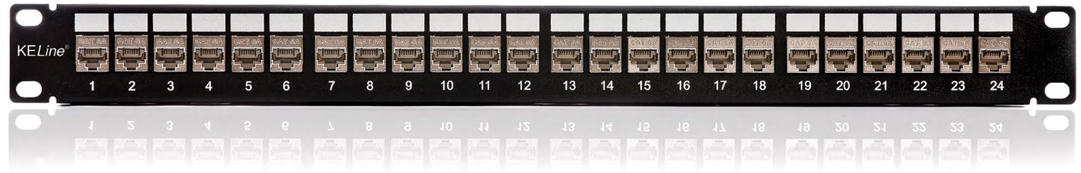
Patch panel, Category 6A, 24xRJ45/s, keystones included

10 Gigabit | Cat.6A system | 500 MHz

P/N: **KEP-CEA-S-10G**

- 24 keystone jacks included (KEJ-CEA-S-10G)
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (4 pcs)
- grounding screw and washer (1 pc)

Height		1U (44,5mm)
Width		19” (482,6mm)
Depth (including cable management)		152mm
Material	front face	steel
	cable management	nickel-plated steel, corrosion-resistant
Colour		black RAL9005
Surface		structured, matt



STP cable 4x2xAWG23, Category 6_A, 550MHz, LSOH Euroclass $B2_{ca}$ - s1, d1, a1

10 Gigabit | Cat.6A system | Cat.6_A Interoperable | 550 MHz | LSOH | $B2_{ca}$ s1,d1,a1

P/N: **KE550HS23/1E-B2ca** 500m on reel

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- each pair individually shielded with AL/PET foil, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- tested in bandwidth up to 550MHz

Min. bending radius	installation	60mm
	operation	30mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	7,5mm	
Copper conductor diameter	AWG23	
NVP	75%	
Reaction to fire	$B2_{ca}$ - s1, d1, a1	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by FORCE Technology international third party laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0), ISO/IEC 11801-2:2017 (Ed.1.0), IEC 61156-5: 2012 (Ed.2.1), EN 50173-1: 2011, EN 50173-2: 2007 Amd.1: 2010, EN 50288-10-1: 2012, ANSI/TIA-568-C.2: 2009, IEC 60332-1-1: 2015 (Ed.1.1), IEC 60332-1-2: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1), IEC 60754-2: 2011 (Ed.2.0).

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

10 Gigabit | Cat.6A system | Cat.6$_A$ Interoperable | 550 MHz | LS0H

STP cable 4x2xAWG23, Category 6$_A$, 550MHz, LSOH
Euroclass D$_{ca}$ - s2, d1, a1

P/N: **KE550HS23/1E-Dca** 500m on reel

Dca s2,d1,a1

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- each pair individually shielded with AL/PET foil, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- tested in bandwidth up to 550MHz

Min. bending radius	installation	56mm
	operation	28mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	7,0mm	
Copper conductor diameter	AWG23	
NVP	75%	
Reaction to fire	D$_{ca}$ - s2, d1, a1	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0), IEC 61156-5: 2012 (Ed.2.1), EN 50173-1: 2011, EN 50288-10-1: 2012, ANSI/TIA-568-C.2: 2009, IEC 60332-1-2: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1), IEC 60754-2: 2011 (Ed.2.0)

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

10 Gigabit | Cat.6A system | Cat.6$_A$ Interoperable | 550 MHz | LS0H

STP cable 4x2xAWG23, Category 6$_A$, 550MHz, LSOH
Euroclass E$_{ca}$

P/N: **KE550HS23/1E-Eca** 500m on reel

Eca

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- each pair individually shielded with AL/PET foil, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- tested in bandwidth up to 550MHz

Min. bending radius	installation	56mm
	operation	28mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	7,0mm	
Copper conductor diameter	AWG23	
NVP	75%	
Reaction to fire	E$_{ca}$	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0), IEC 61156-5: 2012 (Ed.2.1), EN 50173-1: 2011, EN 50288-10-1: 2012, ANSI/TIA-568-C.2: 2009, IEC 60332-1-2: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1), IEC 60754-2: 2011 (Ed.2.0).

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

Patch cable STP, Category 6$_A$, LSOH

P/N: **KEL-C6A-P-005-xx**	length 0,5m	P/N: **KEL-C6A-P-050-xx**	length 5m
P/N: **KEL-C6A-P-010-xx**	length 1m	P/N: **KEL-C6A-P-070-xx**	length 7m
P/N: **KEL-C6A-P-015-xx**	length 1,5m	P/N: **KEL-C6A-P-100-xx**	length 10m
P/N: **KEL-C6A-P-020-xx**	length 2m	P/N: **KEL-C6A-P-150-xx**	length 15m
P/N: **KEL-C6A-P-030-xx**	length 3m	P/N: **KEL-C6A-P-200-xx**	length 20m

Note: Non-standard patch cable length must be specified in the order.
xx - patch cable colour: gray without marking; blue -BL; green -GN; red -RD; yellow -YE; black -BK

10 Gigabit | Cat.6A system | Cat.6$_A$ Interoperable | 500 MHz | LS0H

- individually shielded pairs with stranded wires, halogen-free sheath
- connector RJ45 with patented multi-layered arrangement of contacts
- connector RJ45 complies with IEC 60603-7 standard by its dimensions and transmission features
- enables transmission of all high-speed protocols including 10GBASE-T
- guarantees a bandwidth of 500MHz
- perfectly shielded against Alien Crosstalk and electromagnetic interference

Temperature range	-25°C to +60°C
Min. bending radius	25mm
Outer cable diameter	5,8mm
Copper conductor diameter	AWG27/7
Contact pin material	phosphor-bronze alloy coated with 50µ of gold
Insertion / extraction cycles	min. 750

colour variants:

P/N: KEL-C6A-P-xxx

P/N: KEL-C6A-P-xxx-BL

P/N: KEL-C6A-P-xxx-GN

P/N: KEL-C6A-P-xxx-RD

P/N: KEL-C6A-P-xxx-YE

P/N: KEL-C6A-P-xxx-BK

This product is certified on a component level by FORCE Technology international independent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0) / ISO/IEC 11801-2:2017 (Ed.1.0), EN 50173-1:2018 / EN 50173-2:2018, TIA-568.2-D:2018, IEC 61935-2:2010 (Ed. 3.0) (Transmission requirements). Mass production of this product is carried out under the supervision of FORCE Technology laboratory.

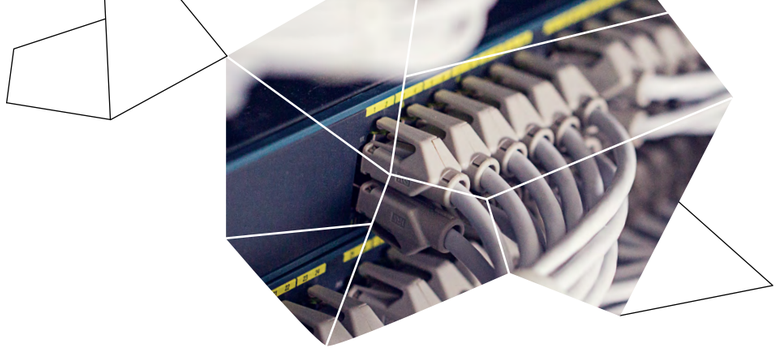
10 Gigabit | Cat.6A system | 500 MHz

Toolless field termination RJ45/s connector for Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables

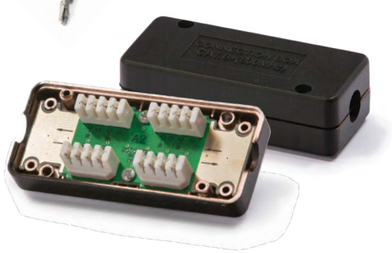
P/N: **KE-FT45-C6AS**

- direct termination on Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables
- tool-free, fast and easy installation
- connection of IP cameras and wireless devices without the need to use outlets and patch cords
- enables transmission of all high-speed protocols including 10GBASE-T within the system Cat.6A
- guarantees a bandwidth of 500MHz within the system Cat.6A
- perfectly shielded against Alien Crosstalk and electromagnetic interference

Suitable for installing on	cables with solid wires from AWG26 to AWG22
	cables with stranded wires from AWG27 to AWG22
	from 6 to 9mm



600 MHz



(page 93)

LSA connection module

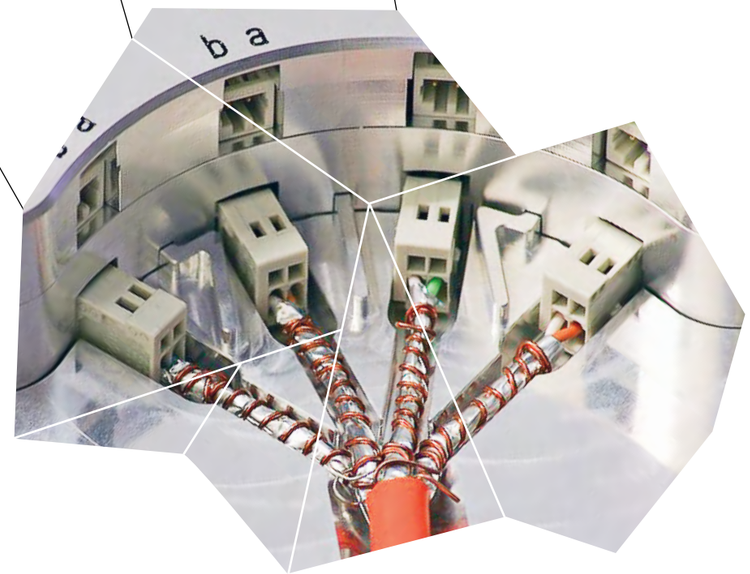
P/N: **KE-AD-C61S**

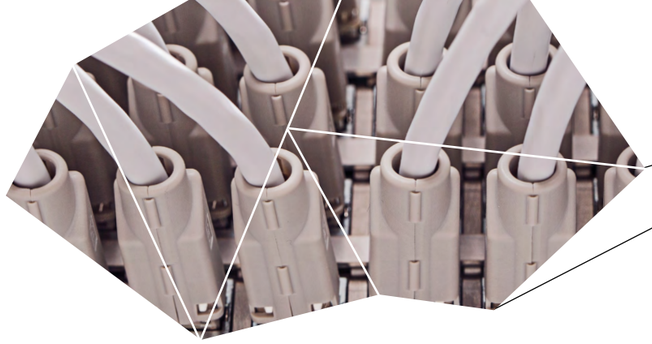
- designed for reconnection of damaged cables of Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables or in case of a need to extend the link
- LSA terminals ensuring connection of cables
- guarantees a bandwidth of 600MHz
- performance category depending on a specific topology and network configuration

Suitable for cables with	solid wire from 0,40mm to 0,64mm (AWG26 to AWG22)
	outer diameter from 4,5 to 7,9mm

KELine®

KELine®





1.

COPPER CABLING

Cat.6 shielded components

1 Gigabit | Cat.6 | 250 MHz

Cat.6 shielded components allow 1Gigabit/s transmission speed, guarantee transmission of all standardized protocols up to 1000BASE-T and ensure a bandwidth of 250MHz.

Cat.6 lost its significance when 10GBASE-T was introduced in 2006.

There is no protocol which would effectively utilize Cat.6.

A bandwidth of 250MHz is insufficient for 10GBASE-T and in case of 1000BASE-T, it is only 32% that is used. This means 170MHz of wasted bandwidth!

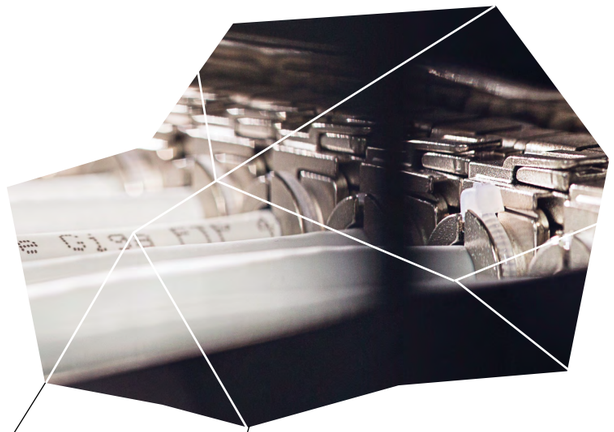
In terms of maximum transmission speed Cat.6 and Cat.5E components are identical.

Definitions and features

Cat.6 components comply with the requirements of Cat.6 performance defined in the international standard ISO/IEC 11801:2017 (Ed. 1.0).

25 YEAR WARRANTY

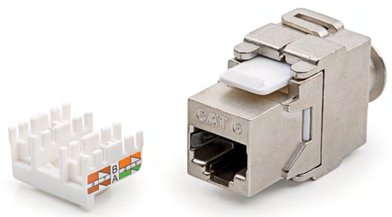
A 25-year warranty is applied on all installations completed by a certfied KE*Line*® partner.



1 Gigabit | Cat.6 | 250 MHz

Keystone Jack, Category 6, RJ45/s

P/N: **KEJ-C6-S-TL**



- tool-free, fast and easy installation
- enables transmission of all high-speed protocols up to 1000BASE-T
- guarantees a bandwidth of 250MHz
- perfectly shielded against electromagnetic interference
- suitable for a wide range of outlets, duct and channel systems (see page 94)

Suitable for installing on	cables with solid wires from 0,51 to 0,64mm (AWG24 to AWG22)
Required installation depth	15 - 40mm - sockets with angled faceplates 40mm - sockets with straight faceplates
Contact pin material	phosphor-bronze alloy coated with 6µ of gold
Insertion / extraction cycles	min. 750

1 Gigabit | Cat.6 | 250 MHz

Modulo50 outlet, Category 6, 2xRJ45/s, flush-mounted, keystones included

P/N: **601140-UP + KEJ-C6-S-TL(2)**

- 2 keystone jacks included (KEJ-C6-S-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Colour	white RAL9010	
Surface	glossy	
Required installation depth	40mm	

1 Gigabit | Cat.6 | 250 MHz

Modulo50 outlet, Category 6, 2xRJ45/s, wall-mounted, keystones included

P/N: **601140-AP + KEJ-C6-S-TL(2)**

- 2 keystone jacks included (KEJ-C6-S-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Surface mounting box	80x80x40mm	
Colour	white RAL9010	
Surface	glossy	

1 Gigabit | Cat.6 | 250 MHz

Legrand® Mosaic™ compatible outlet module, Category 6, 2xRJ45/s, keystones included

P/N: **601122 + KEJ-C6-S-TL(2)**

- 2 keystone jacks included (KEJ-C6-S-TL)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078814 + 080252, 078816 + 080253, 078818 + 080254

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	35mm

1 Gigabit | Cat.6 | 250 MHz

Modulo45 outlet, Category 6, 2xRJ45/s, flush-mounted, keystones included

P/N: **601120-UP + KEJ-C6-S-TL(2)**

- 2 keystone jacks included (KEJ-C6-S-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Colour	white RAL9003	
Surface	glossy	
Required installation depth	30mm	

1 Gigabit | Cat.6 | 250 MHz

Modulo45 outlet, Category 6, 2xRJ45/s, wall-mounted, keystones included

P/N: **601120-AP + KEJ-C6-S-TL(2)**

- 2 keystone jacks included (KEJ-C6-S-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central modul	45x45mm
Surface mounting box	81x81x40mm	
Colour	white RAL9003	
Surface	glossy	

1 Gigabit | Cat.6 | 250 MHz

Modulo45 outlet, Category 6, 2xRJ45/s, floor / duct-mounted, keystones included

P/N: **601120 + KEJ-C6-S-TL(2)**

- 2 keystone jacks included (KEJ-C6-S-TL)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078804 + 080252, 078806 + 080253, 078808 + 080254
- suitable for duct and channel systems of other manufacturers such as Legrand, OBO Bettermann, Elektraplan Niedax, etc

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	30mm

1 Gigabit | Cat.6 | 250 MHz

Legrand® Valena™ compatible outlet module, Category 6, 2xRJ45/s, keystones included

P/N: **601150 + KEJ-C6-S-TL(2)**

- 2 keystone jacks included (KEJ-C6-S-TL)
- straight entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Valena™ single and dual frames
  P/N: 774451, 774452, 774461, 774462, 770491, 770492

** Legrand® single or double frame must be ordered separately*

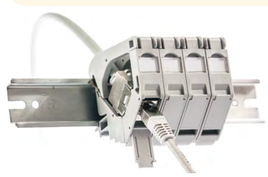
Dimensions	58x52mm
Colour	white RAL9003
Surface	glossy
Required installation depth	40mm

1 Gigabit | Cat.6 | 250 MHz

DIN rail keystone holder, Category 6, 1xRJ45/s, keystone included

P/N: **HN-DIN-C6S**

- 1 keystone jack included (KEJ-C6-S-TL)
- designed for DIN rails in residential and industrial electric distribution (home networking and industrial Ethernet)
- port protected with a dust-proof shutter



Patch panel HD, Category 6, 24xRJ45/s, 0,5U

P/N: **606068**

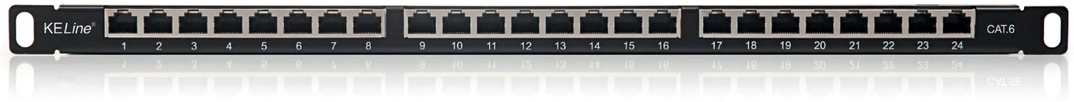
1 Gigabit | Cat.6 | 250 MHz

HD HIGH DENSITY

- enables a density of up to 48 ports in 1U
- 110/LSA termination blocks
- fast and easy installation using 110 or Krone® insertion tool
- enables transmission of all high-speed protocols including 1000BASE-T
- guarantees a bandwidth of 250MHz
- shielded against electromagnetic interference
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)

(page 93)

Height	0,5U
Width	19” (482,6mm)
Depth (including cable management)	114mm
Material	steel
Colour	black RAL9005
Surface	matt
Suitable for cables with solid wires	from 0,51 to 0,64mm (AWG24 to AWG22)



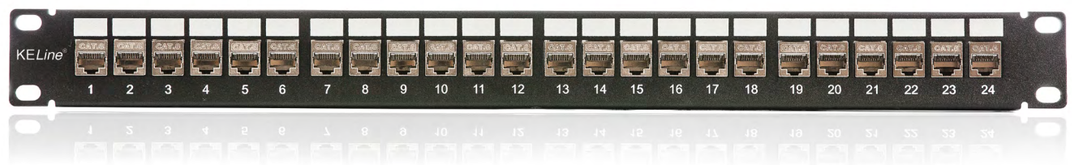
Patch panel, Category 6, 24xRJ45/s, keystones included

P/N: **KEP-C6-S-TL**

1 Gigabit | Cat.6 | 250 MHz

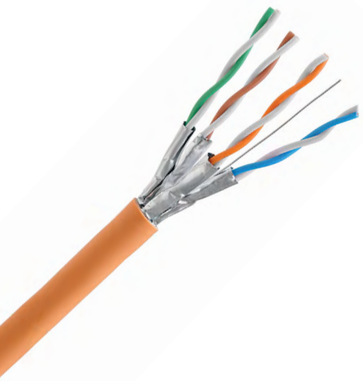
- 24 keystone jacks included (KEJ-C6-S-TL)
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (4 pcs)
- grounding screw and washer (1 pc)

Height		1U (44,5mm)
Width		19” (482,6mm)
Depth (including cable management)		152mm
Material	front face	steel
	cable management	nickel-plated steel, corrosion-resistant
Colour		black RAL9005
Surface		structured, matt



10 Gigabit | Cat.6$_A$ Interoperable | 550 MHz | LS0H

B2$_{ca}$ s1,d1,a1



STP cable 4x2xAWG23, Category 6$_A$, 550MHz, LSOH Euroclass B2$_{ca}$ - s1, d1, a1

P/N: **KE550HS23/1E-B2ca** 500m on reel

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- each pair individually shielded with AL/PET foil, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- tested in bandwidth up to 550MHz

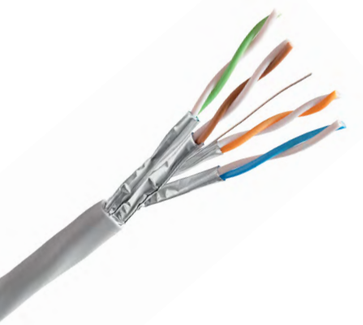
Min. bending radius	installation	60mm
	operation	30mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	7,5mm	
Copper conductor diameter	AWG23	
NVP	75%	
Reaction to fire	B2$_{ca}$ - s1, d1, a1	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by FORCE Technology international third party laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0), ISO/IEC 11801-2:2017 (Ed.1.0), IEC 61156-5: 2012 (Ed.2.1), EN 50173-1: 2011, EN 50173-2: 2007 Amd.1: 2010, EN 50288-10-1: 2012, ANSI/TIA-568-C.2: 2009, IEC 60332-1-1: 2015 (Ed.1.1), IEC 60332-1-2: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1), IEC 60754-2: 2011 (Ed.2.0).

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

10 Gigabit | Cat.6$_A$ Interoperable | 550 MHz | LS0H

D$_{ca}$ s2,d1,a1



STP cable 4x2xAWG23, Category 6$_A$, 550MHz, LSOH Euroclass D$_{ca}$ - s2, d1, a1

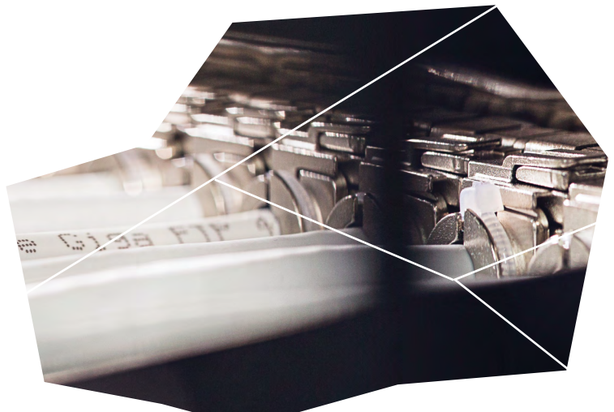
P/N: **KE550HS23/1E-Dca** 500m on reel

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- each pair individually shielded with AL/PET foil, halogen-free sheath
- enables transmission of all high-speed protocols including 10GBASE-T
- tested in bandwidth up to 550MHz

Min. bending radius	installation	56mm
	operation	28mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	7,0mm	
Copper conductor diameter	AWG23	
NVP	75%	
Reaction to fire	D$_{ca}$ - s2, d1, a1	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801-1:2017 (Ed.1.0), IEC 61156-5: 2012 (Ed.2.1), EN 50173-1: 2011, EN 50288-10-1: 2012, ANSI/TIA-568-C.2: 2009, IEC 60332-1-2: 2015 (Ed.1.1), IEC 61034-1: 2013 (Ed.3.1), IEC 61034-2: 2013 (Ed.3.1), IEC 60754-2: 2011 (Ed.2.0)

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

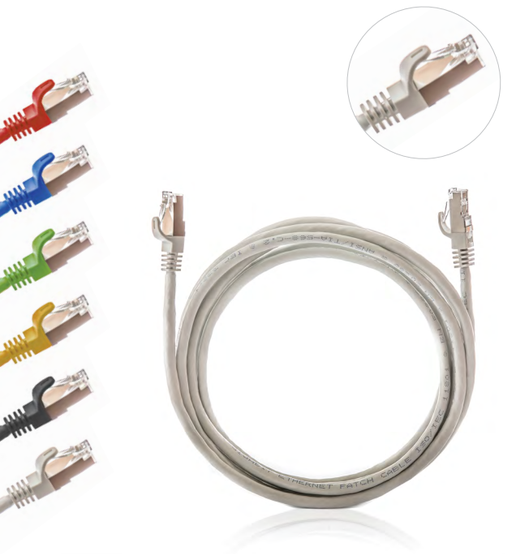


1 Gigabit | Cat.6 | 250 MHz | LS0H

Patch cable STP, Category 6, LSOH

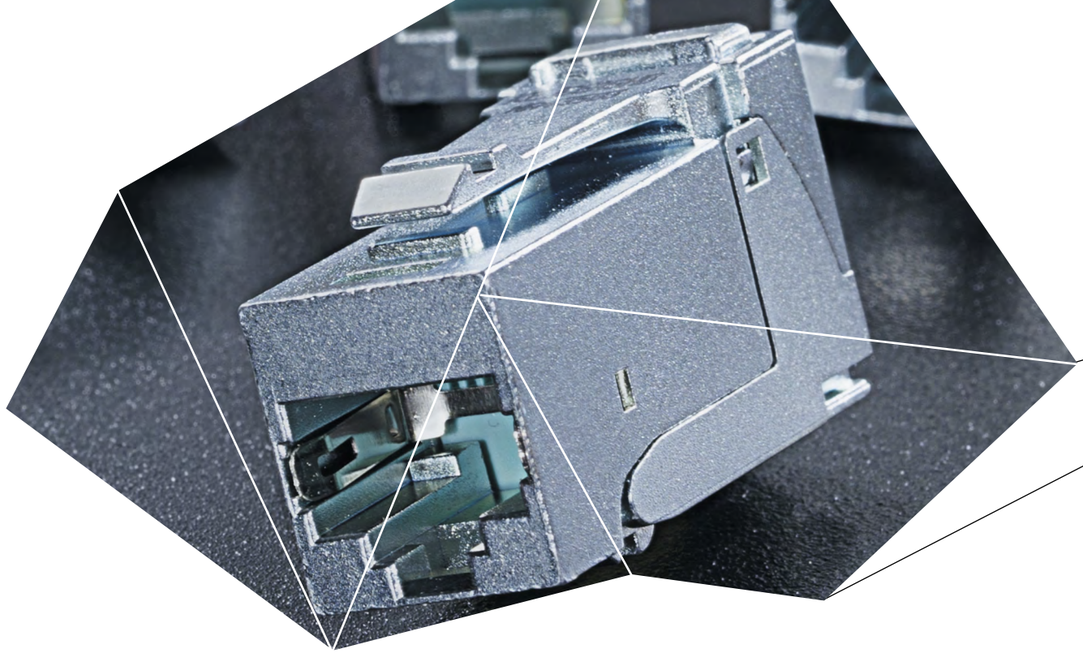
P/N: **PC-C6-S-005**	length 0,5m	P/N: **PC-C6-S-020**	length 2m
P/N: **PC-C6-S-010**	length 1m	P/N: **PC-C6-S-030**	length 3m
P/N: **PC-C6-S-015**	length 1,5m	P/N: **PC-C6-S-050**	length 5m

Note: Non-standard patch cable colours must be specified in the order.
Non-standard patch cable length must be specified in the order.



- individually shielded pairs with stranded wires, halogen-free sheath
- connector RJ45 is compliant with IEC 60603-7 standard by its dimensions and transmission features
- enables transmission of all high-speed protocols up to 1000BASE-T
- guarantees a bandwidth of 250MHz
- shielded against electromagnetic interference

Temperature range	-25°C to +60°C	
Min. bending radius	25mm	
Outer cable diameter	6,2mm	
Copper conductor diameter	AWG27/7	
Contact pin material	phosphor-bronze alloy coated with 50µ of gold	
Insertion / extraction cycles	min. 750	
Colour (standard)	cable	gray RAL7035
	boots	gray RAL7035



10 Gigabit | Cat.6A system | 500 MHz

Toolless field termination RJ45/s connector for Cat.7_A, Cat.7, Cat.6_A, Cat.6, Cat.5E cables

P/N: **KE-FT45-C6AS**

- direct termination on Cat.7_A, Cat.7, Cat.6_A, Cat.6, Cat.5E cables
- tool-free, fast and easy installation
- connection of IP cameras and wireless devices without the need to use outlets and patch cords
- enables transmission of all high-speed protocols including 10GBASE-T within the system Cat.6A
- guarantees a bandwidth of 500MHz within the system Cat.6A
- perfectly shielded against Alien Crosstalk and electromagnetic interference

Suitable for installing on	cables with solid wires from AWG26 to AWG22
	cables with stranded wires from AWG27 to AWG22
	from 6 to 9mm

KELine®

600 MHz

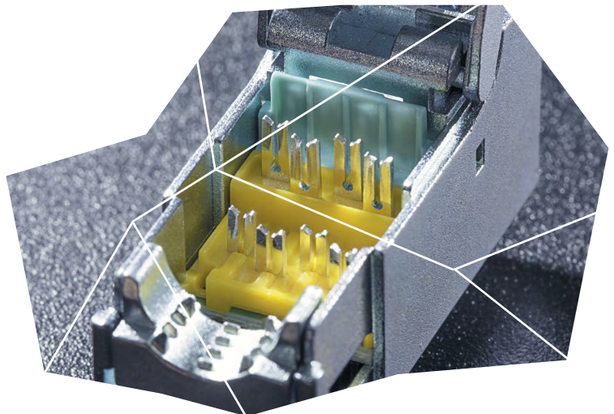
LSA connection module

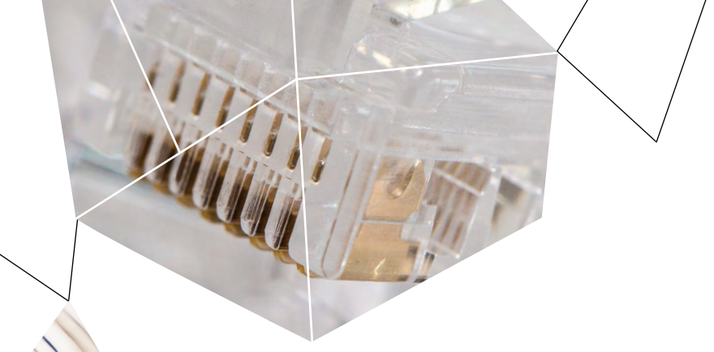
P/N: **KE-AD-C61S**

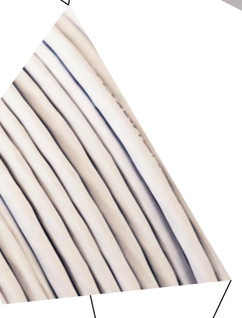
(page 93)

- designed for reconnection of damaged cables of Cat.7_A, Cat.7, Cat.6_A, Cat.6, Cat.5E cables or in case of a need to extend the link
- LSA terminals ensuring connection of cables
- guarantees a bandwidth of 600MHz
- performance category depending on a specific topology and network configuration

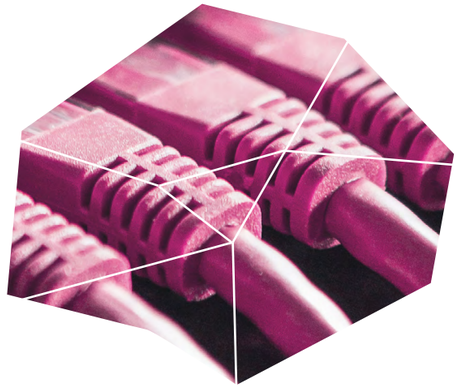
Suitable for cables with	solid wire from 0,40mm to 0,64mm (AWG26 to AWG22)
	outer diameter from 4,5 to 7,9mm

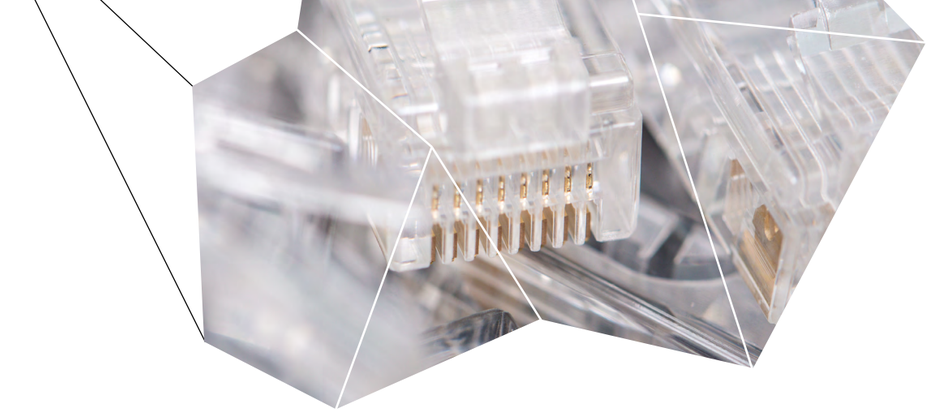






KELine®





1.

COPPER CABLING

Cat.6 unshielded components

1 Gigabit | Cat.6 | 250 MHz

Cat.6 unshielded components allow 1Gigabit/s transmission speed, guarantee transmission of all standardized protocols up to 1000BASE-T and ensure a bandwidth of 250MHz.

Cat.6 lost its significance when 10GBASE-T was introduced in 2006.

There is no protocol which would effectively utilize Cat.6.

A bandwidth of 250MHz is insufficient for 10GBASE-T and in case of 1000BASE-T, it is only 32% that is used. This means 170MHz of wasted bandwidth!

In terms of maximum transmission speed Cat.6 and Cat.5E components are identical.

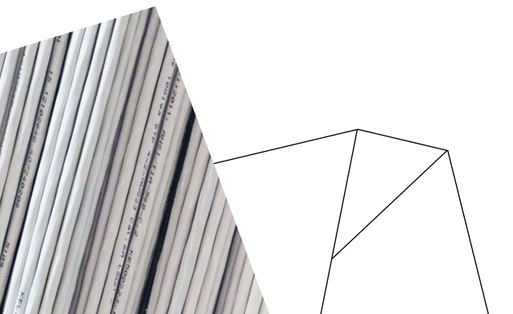
25 YEAR WARRANTY

A 25-year warranty is applied on all installations completed by a certfied KE*Line*® partner.

Definitions and features

Cat.6 components comply with the requirements of Cat.6 performance defined in the international standard ISO/IEC 11801:2017 (Ed. 1.0).

Unshielded components are not resistant against electromagnetic interference.
Unshielded cables must be installed at a distance of at least 5 times greater from power cables as compared to shielded cables.



KELine®

1 Gigabit | Cat.6 | 250 MHz

Keystone Jack, Category 6, RJ45/u

P/N: **KEJ-C6-U-TL**

- tool-free, fast and easy installation
- enables transmission of all high-speed protocols up to 1000BASE-T
- guarantees a bandwidth of 250MHz
- not protected against electromagnetic interference
- suitable for a wide range of outlets, duct and channel systems (see page 94)

Suitable for installing on	cables with solid wires from 0,51 to 0,64mm (AWG24 to AWG22)
Required installation depth	15 - 35mm - sockets with angled faceplates 35mm - sockets with straight faceplates
Contact pin material	phosphor-bronze alloy coated with 6µ of gold
Insertion / extraction cycles	min. 750

1 Gigabit | Cat.6 | 250 MHz

Modulo50 outlet, Category 6, 2xRJ45/u, flush-mounted, keystones included

P/N: **601140-UP + KEJ-C6-U-TL(2)**

- 2 keystone jacks included (KEJ-C6-U-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Colour	white RAL9010	
Surface	glossy	
Required installation depth	35mm	

1 Gigabit | Cat.6 | 250 MHz

Modulo50 outlet, Category 6, 2xRJ45/u, wall-mounted, keystones included

P/N: **601140-AP + KEJ-C6-U-TL(2)**

- 2 keystone jacks included (KEJ-C6-U-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Surface mounting box	80x80x40mm	
Colour	white RAL9010	
Surface	glossy	

1 Gigabit | Cat.6 | 250 MHz

Legrand® Mosaic™ compatible outlet module, Category 6, 2xRJ45/u, keystones included

P/N: **601122 + KEJ-C6-U-TL(2)**

- 2 keystone jacks included (KEJ-C6-U-TL)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078814 + 080252, 078816 + 080253, 078818 + 080254

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	30mm

1 Gigabit | Cat.6 | 250 MHz

Modulo45 outlet, Category 6, 2xRJ45/u, flush-mounted, keystones included

P/N: **601120-UP + KEJ-C6-U-TL(2)**

- 2 keystone jacks included (KEJ-C6-U-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Colour	white RAL9003	
Surface	glossy	
Required installation depth	25mm	

1 Gigabit | Cat.6 | 250 MHz

Modulo45 outlet, Category 6, 2xRJ45/u, wall-mounted, keystones included

P/N: **601120-AP + KEJ-C6-U-TL(2)**

- 2 keystone jacks included (KEJ-C6-U-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Surface mounting box	81x81x40mm	
Colour	white RAL9003	
Surface	glossy	

Modulo45 outlet, Category 6, 2xRJ45/u, floor / duct-mounted, keystones included

P/N: **601120 + KEJ-C6-U-TL(2)**

- 2 keystone jacks included (KEJ-C6-U-TL)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078804 + 080252, 078806 + 080253, 078808 + 080254
- suitable for duct and channel systems of other manufacturers such as Legrand, OBO Bettermann, Elektraplan Niedax, etc

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	25mm

Legrand® Valena™ compatible outlet module, Category 6, 2xRJ45/u, keystones included

P/N: **601150 + KEJ-C6-U-TL(2)**

- 2 keystone jacks included (KEJ-C6-U-TL)
- straight entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Valena™ single and dual frames
  P/N: 774451, 774452, 774461, 774462, 770491, 770492

** Legrand® single or double frame must be ordered separately*

Dimensions	58x52mm
Colour	white RAL9003
Surface	glossy
Required installation depth	35mm

DIN rail keystone holder, Category 6, 1xRJ45/u, keystone included

P/N: **HN-DIN-C6U**

- 1 keystone jack included (KEJ-C6-U-TL)
- designed for DIN rails in residential and industrial electric distribution (home networking and industrial Ethernet)
- port protected with a dust-proof shutter

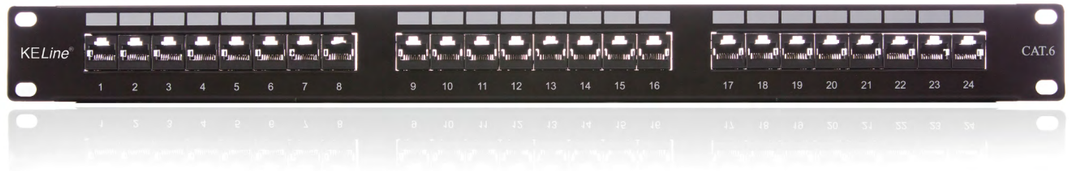
Patch panel, Category 6, 24xRJ45/u

P/N: **606059**

- 110/LSA termination blocks
- fast and easy installation using 110 or Krone® insertion tool
- enables transmission of all high-speed protocols including 1000BASE-T
- guarantees a bandwidth of 250MHz
- cable ties for gripping (24 pcs)
- not protected against electromagnetic interference
- designed for 19” cabinets
- integrated cable management

Height	1U (44,5mm)
Width	19” (482,6mm)
Depth (including cable management)	115mm
Material	steel
Colour	black RAL9005
Surface	structured, matt
Suitable for cables with solid wires	from 0,51 to 0,64mm (AWG24 to AWG22)

(page 93)

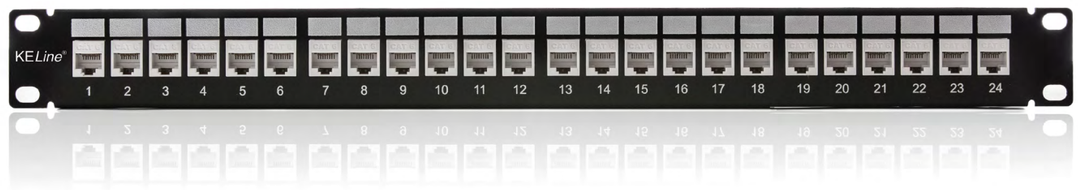


Patch panel, Category 6, 24xRJ45/u, keystones included

P/N: **KEP-C6-U-TL**

- 24 keystone jacks included (KEJ-C6-U-TL)
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (4 pcs)
- grounding screw and washer (1 pc)
- not protected against electromagnetic interference

Height		1U (44,5mm)
Width		19” (482,6mm)
Depth (including cable management)		152mm
Material	front face	steel
	cable management	nickel-plated steel, corrosion-resistant
Colour		black RAL9005
Surface		structured, matt



1 Gigabit | Cat.6 | 400 MHz | LS0H

D_{ca} s2,d2,a1

UTP (U/UTP) cable 4x2x0,54, Category 6, 400MHz, LSOH Euroclass D_{ca} - s2, d2, a1

P/N: **KE400U23LSOH-Dca** 305m in box

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- unshielded cable with pairs separated by a cross filler, halogen-free sheath
- enables transmission of all high-speed protocols including 1000BASE-T
- tested in bandwidth up to 400MHz
- not protected against electromagnetic interference

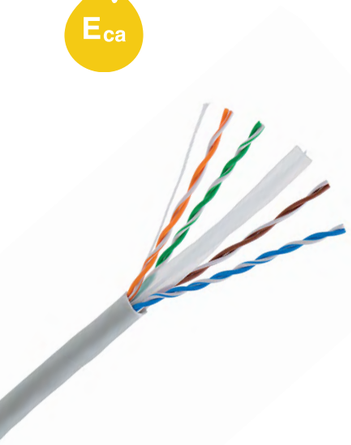
Min. bending radius	installation	48mm
	operation	24mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	6mm	
Copper conductor diameter	0,54mm	
NVP	67%	
Reaction to fire	D_{ca} - s2, d2, a1	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801:2017 (Ed.1.0), IEC 61156-5:2012 (Ed.2.1), EN 50173-1:2018, EN 50288-6-1:2013, ANSI/TIA 568.2-D:2018, IEC 60332-1-2, IEC 61034-1, IEC61034-2 Amd.1, IEC 60754-2.

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

1 Gigabit | Cat.6 | 400 MHz | LS0H

E_{ca}



UTP (U/UTP) cable 4x2x0,54, Category 6, 400MHz, LSOH Euroclass E_{ca}

P/N: **KE400U23LSOH-Eca** 305m in box

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- unshielded cable with pairs separated by a cross filler, halogen-free sheath
- enables transmission of all high-speed protocols including 1000BASE-T
- tested in bandwidth up to 400MHz
- not protected against electromagnetic interference

Min. bending radius	installation	48mm
	operation	24mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60 °C
Outer cable diameter	6mm	
Copper conductor diameter	0,54mm	
NVP	67%	
Reaction to fire	E_{ca}	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801:2017 (Ed.1.0), IEC 61156-5:2012 (Ed.2.1), EN 50173-1:2018, EN 50288-6-1:2013, ANSI/TIA 568.2-D:2018, IEC 60332-1-2, IEC 61034-1, IEC61034-2 Amd.1, IEC 60754-2.

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

UTP (U/UTP) cable 4x2x0,54, Category 6, 400MHz, Euroclass E_{ca}

P/N: **KE400U23-Eca** 305m in box

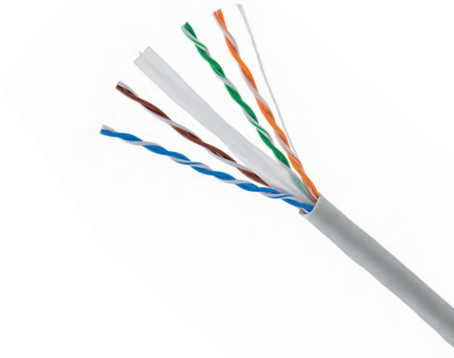
- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- unshielded cable with pairs separated by a cross filler
- enables transmission of all high-speed protocols including 1000BASE-T
- tested in bandwidth up to 400MHz
- not protected against electromagnetic interference

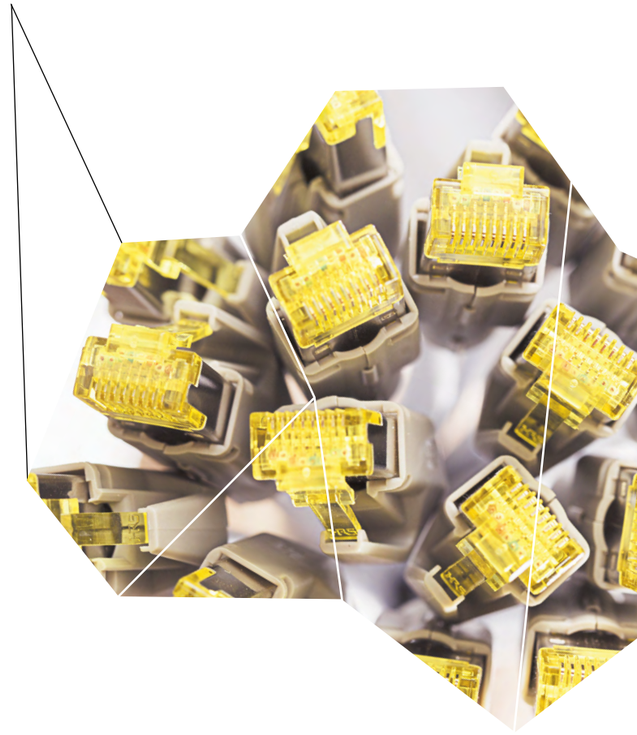
Min. bending radius	installation	48mm
	operation	24mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	6mm	
Copper conductor diameter	0,54mm	
NVP	67%	
Reaction to fire	E_{ca}	
Fire safety	flame retardant	

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

1 Gigabit | Cat.6 | 400 MHz

E_{ca}





1 Gigabit | Cat.6 | 250 MHz

Patch cable UTP, Category 6

P/N: **KEN-C6-U-005**	length 0,5m	P/N: **KEN-C6-U-020**	length 2m
P/N: **KEN-C6-U-010**	length 1m	P/N: **KEN-C6-U-030**	length 3m
P/N: **KEN-C6-U-015**	length 1,5m	P/N: **KEN-C6-U-050**	length 5m

Note: Non-standard patch cable length must be specified in the order.

- unshielded cable with stranded wires, PVC sheath
- connector RJ45 is compliant with IEC 60603-7 standard by its dimensions and transmission features
- enables transmission of all high-speed protocols up to 1000BASE-T
- guarantees a bandwidth of 250MHz
- not protected against electromagnetic interference

Temperature range	-25°C to +60°C	
Min. bending radius	25mm	
Outer cable diameter	5,9mm	
Copper conductor diameter	AWG24/7	
Contact pin material	phosphor-bronze alloy coated with 50µ of gold	
Insertion / extraction cycles	min. 750	
Colour	cable	gray RAL7035
	boots	gray RAL7035

10 Gigabit | Cat.6A system | 500 MHz

Toolless field termination RJ45/s connector for Cat.7_A, Cat.7, Cat.6_A, Cat.6, Cat.5E cables

P/N: **KE-FT45-C6AS**

- direct termination on Cat.7_A, Cat.7, Cat.6_A, Cat.6, Cat.5E cables
- tool-free, fast and easy installation
- connection of IP cameras and wireless devices without the need to use outlets and patch cords
- enables transmission of all high-speed protocols including 10GBASE-T within the system Cat.6A
- guarantees a bandwidth of 500MHz within the system Cat.6A
- perfectly shielded against Alien Crosstalk and electromagnetic interference

Suitable for installing on	cables with solid wires from AWG26 to AWG22
	cables with stranded wires from AWG27 to AWG22
	from 6 to 9mm

600 MHz

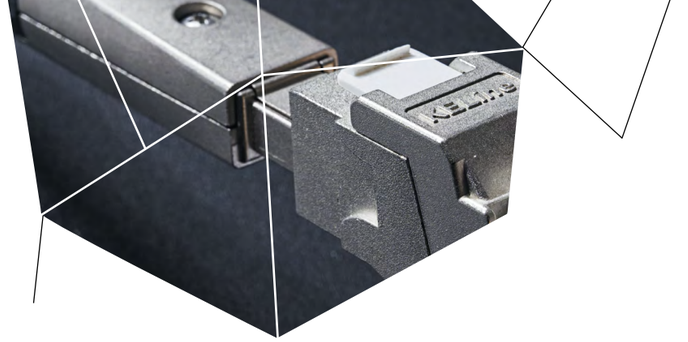
(page 93)

LSA connection module

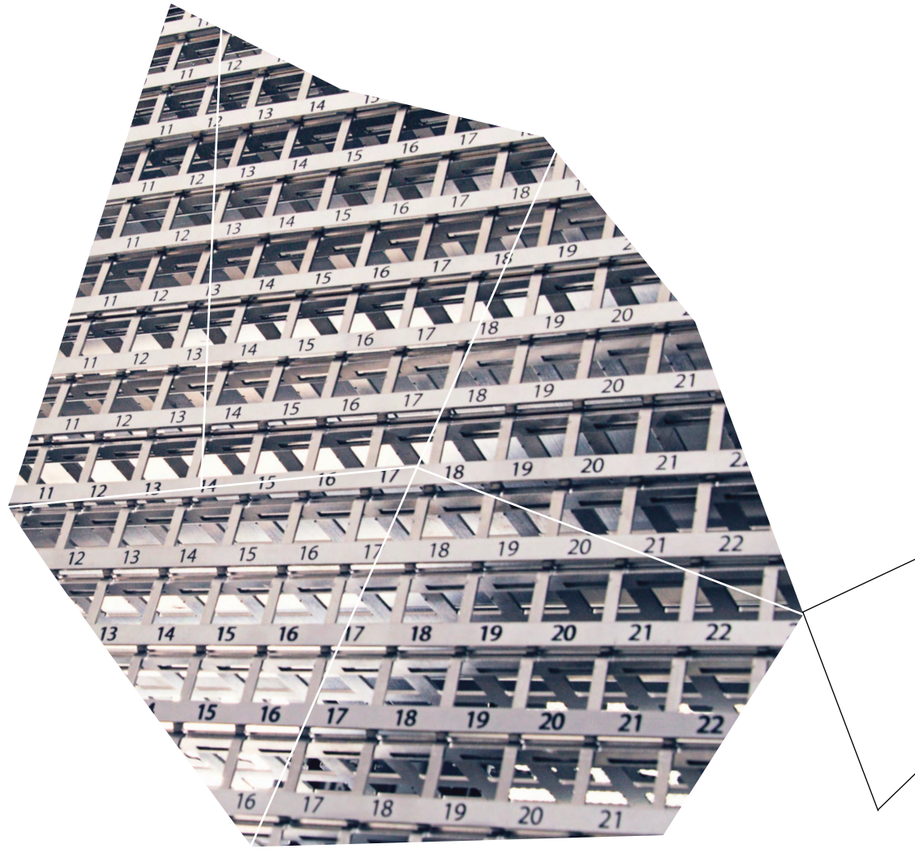
P/N: **KE-AD-C61S**

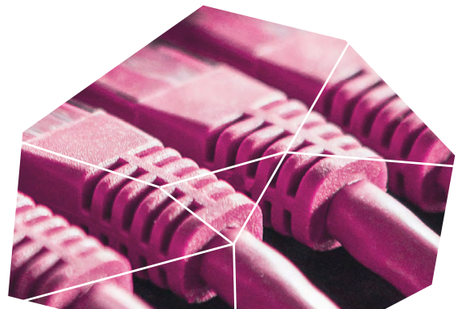
- designed for reconnection of damaged cables of Cat.7_A, Cat.7, Cat.6_A, Cat.6, Cat.5E cables or in case of a need to extend the link
- LSA terminals ensuring connection of cables
- guarantees a bandwidth of 600MHz
- performance category depending on a specific topology and network configuration

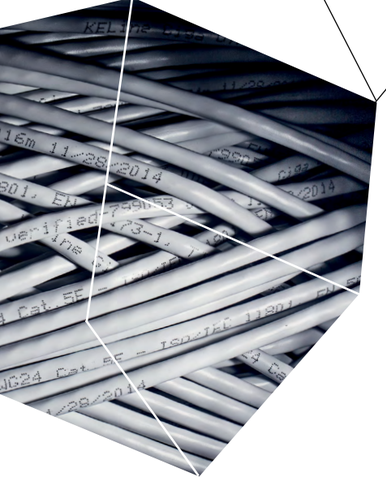
Suitable for cables with	solid wire from 0,40mm to 0,64mm (AWG26 to AWG22)
	outer diameter from 4,5 to 7,9mm

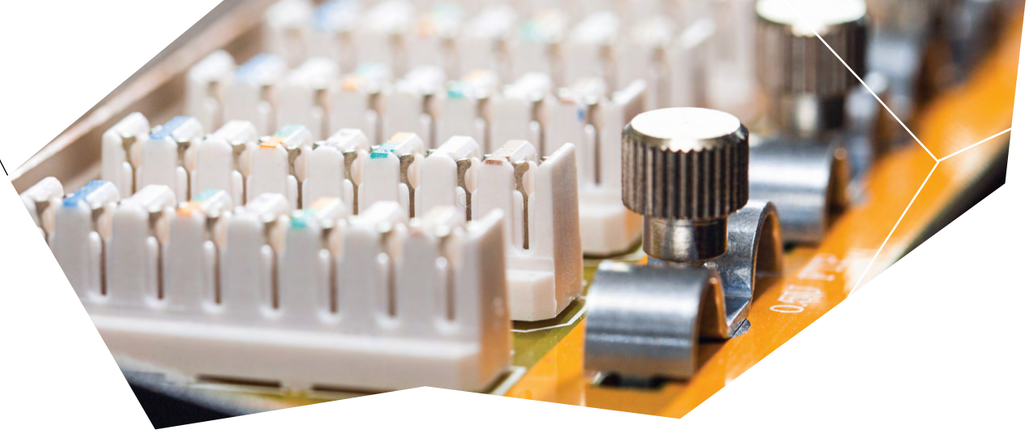


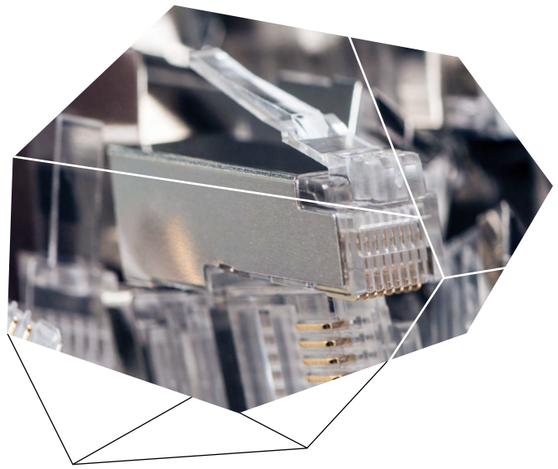
KELine®











KELine®

1.

COPPER CABLING

Cat.5E shielded components

1 Gigabit | Cat.5E | 100 MHz

Cat.5E shielded components allow 1Gigabit/s transmission speed, guarantee transmission of all standardized protocols up to 1000BASE-T and ensure a bandwidth of 100MHz.

These components have been installed for more than 10 years and since 2002 represent the standardized minimum.

Components meet the bandwidth requirements of 1000BASE-T with a safety margin of over 20%.

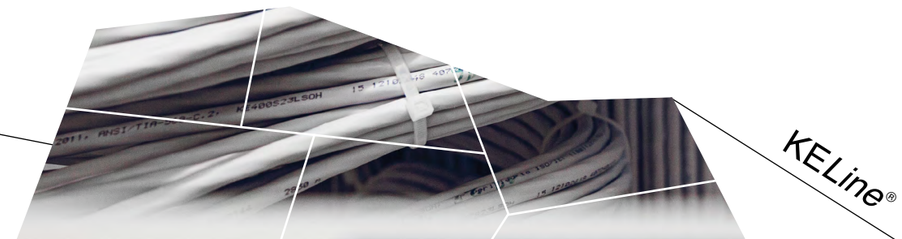
Cat.5E components are an appropriate solution for companies with lower demands on the amount of transferred data.

25 YEAR WARRANTY

A 25-year warranty is applied on all installations completed by a certfied KE*Line*® partner.

Definitions and features

Cat.5E components comply with the requirements of Category 5 performance defined in the international standard ISO/IEC 11801:2017 (Ed. 1.0).
Shielded components guarantee resistance against electromagnetic interference.

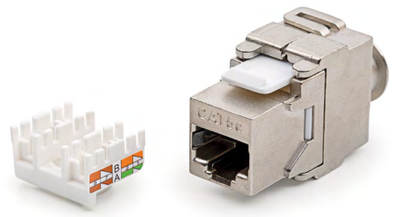


KELine®

1 Gigabit | Cat.5E | 100 MHz

Keystone Jack, Category 5E, RJ45/s

P/N: **KEJ-C5E-S-TL**



- tool-free, fast and easy installation
- enables transmission of all high-speed protocols up to 1000BASE-T
- guarantees a bandwidth of 100MHz
- perfectly shielded against electromagnetic interference
- suitable for a wide range of outlets, duct and channel systems (see page 94)

Suitable for installing on	cables with solid wires from 0,51 to 0,64mm (AWG24 to AWG22)
Required installation depth	15 - 40mm - sockets with angled faceplates 40mm - sockets with straight faceplates
Contact pin material	phosphor-bronze alloy coated with 6µ of gold
Insertion / extraction cycles	min. 750

1 Gigabit | Cat.5E | 100 MHz

Modulo50 outlet, Category 5E, 2xRJ45/s, flush-mounted, keystones included

P/N: **601140-UP + KEJ-C5E-S-TL(2)**

- 2 keystone jacks included (KEJ-C5E-S-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Colour	white RAL9010	
Surface	glossy	
Required installation depth	40mm	

1 Gigabit | Cat.5E | 100 MHz

Modulo50 outlet, Category 5E, 2xRJ45/s, wall-mounted, keystones included

P/N: **601140-AP + KEJ-C5E-S-TL(2)**

- 2 keystone jacks included (KEJ-C5E-S-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Surface mounting box	80x80x40mm	
Colour	white RAL9010	
Surface	glossy	

1 Gigabit | Cat.5E | 100 MHz

Legrand® Mosaic™ compatible outlet module, Category 5E, 2xRJ45/s, keystones included

P/N: **601122 + KEJ-C5E-S-TL(2)**

- 2 keystone jacks included (KEJ-C5E-S-TL)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078814 + 080252, 078816 + 080253, 078818 + 080254

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	30mm

1 Gigabit | Cat.5E | 100 MHz

Modulo45 outlet, Category 5E, 2xRJ45/s, flush-mounted, keystones included

P/N: **601120-UP + KEJ-C5E-S-TL(2)**

- 2 keystone jacks included (KEJ-C5E-S-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Colour	white RAL9003	
Surface	glossy	
Required installation depth	30mm	

1 Gigabit | Cat.5E | 100 MHz

Modulo45 outlet, Category 5E, 2xRJ45/s, wall-mounted, keystones included

P/N: **601120-AP + KEJ-C5E-S-TL(2)**

- 2 keystone jacks included (KEJ-C5E-S-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Surface mounting box	81x81x40mm	
Colour	white RAL9003	
Surface	glossy	

1 Gigabit | Cat.5E | 100 MHz

Modulo45 outlet, Category 5E, 2xRJ45/s, floor / duct-mounted, keystones included

P/N: **601120 + KEJ-C5E-S-TL(2)**

- 2 keystone jacks included (KEJ-C5E-S-TL)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078804 + 080252, 078806 + 080253, 078808 + 080254
- suitable for duct and channel systems of other manufacturers such as Legrand, OBO Bettermann, Elektraplan Niedax, etc

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	30mm

1 Gigabit | Cat.5E | 100 MHz

Legrand® Valena™ compatible outlet module, Category 5E, 2xRJ45/s, keystones included

P/N: **601150 + KEJ-C5E-S-TL(2)**

- 2 keystone jacks included (KEJ-C5E-S-TL)
- straight entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Valena™ single and dual frames
  P/N: 774451, 774452, 774461, 774462, 770491, 770492

** Legrand® single or double frame must be ordered separately*

Dimensions	58x52mm
Colour	white RAL9003
Surface	glossy
Required installation depth	40mm

1 Gigabit | Cat.5E | 100 MHz

DIN rail keystone holder, Category 5E, 1xRJ45/s, keystone included

P/N: **HN-DIN-C5ES**

- 1 keystone jack included (KEJ-C5E-S-TL)
- designed for DIN rails in residential and industrial electric distribution (home networking and industrial Ethernet)
- port protected with a dust-proof shutter

Patch panel HD, Category 5E, 24xRJ45/s, 0,5U

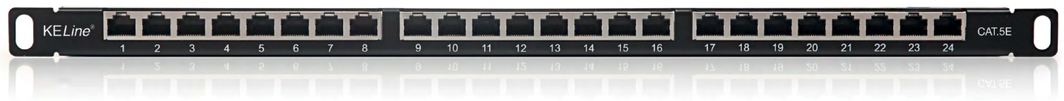
1 Gigabit | Cat.5E | 100 MHz | HD HIGH DENSITY

P/N: **606058**

- reaches a density of up to 48 ports in 1U
- 110/LSA termination blocks
- fast and easy installation using 110 or Krone® insertion tool
- enables transmission of all high-speed protocols including 1000BASE-T
- guarantees a bandwidth of 100MHz
- cable ties for gripping (24 pcs)
- not protected against electromagnetic interference
- designed for 19” cabinets
- integrated cable management

(page 93)

Height	0,5U
Width	19” (482,6mm)
Depth (including cable management)	114mm
Material	steel
Colour	black RAL9005
Surface	matt
Suitable for cables with solid wires	from 0,51 to 0,64mm (AWG24 to AWG22)



Patch panel, Category 5E, 24xRJ45/s

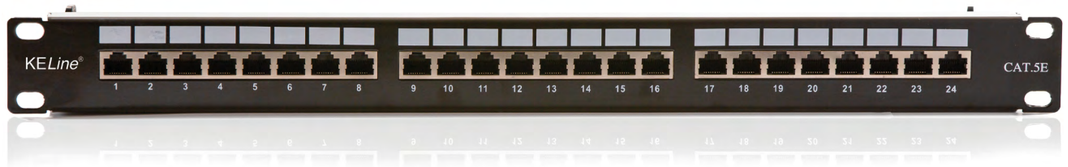
1 Gigabit | Cat.5E | 100 MHz

P/N: **606029**

- 110/LSA termination blocks
- fast and easy installation using 110 or Krone® insertion tool
- enables transmission of all high-speed protocols including 1000BASE-T
- guarantees a bandwidth of 100MHz
- cable ties for gripping (24 pcs)
- perfectly shielded against electromagnetic interference
- designed for 19” cabinets
- integrated cable management

(page 93)

Height	1U (44,5mm)
Width	19” (482,6mm)
Depth (including cable management)	129mm
Material	steel
Colour	black RAL9005
Surface	structured, matt
Suitable for cables with solid wires	from 0,51 to 0,64mm (AWG24 to AWG22)



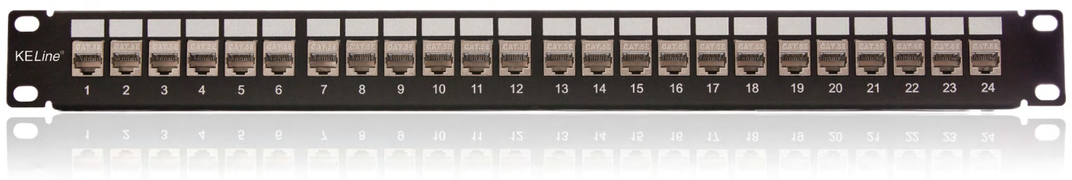
1 Gigabit | Cat.5E | 100 MHz

Patch panel, Category 5E, 24xRJ45/s, keystones included

P/N: **KEP-C5E-S-TL**

- 24 keystone jacks included (KEJ-C5E-S-TL)
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (4 pcs)
- grounding screw and washer (1 pc)

Height		1U (44,5mm)
Width		19” (482,6mm)
Depth (including cable management)		152mm
Material	front face	steel
	cable management	nickel-plated steel, corrosion-resistant
Colour		black RAL9005
Surface		structured, matt



1 Gigabit | Cat.5E | 300 MHz | LS0H

Eca

FTP (F/UTP) cable 4x2xAWG24, Category 5E, 300MHz, LSOH Euroclass E_{ca}

P/N: **KE300S24LSOH-Eca** 500m on reel

P/N: **KE300S24LSOH-Eca-RLX** 305m in box

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- cable shielded with AL/PET foil, halogen-free sheath
- enables transmission of all high-speed protocols including 1000BASE-T
- tested in bandwidth up to 300MHz
- enables RJ45 connectors to be mounted directly to the cable

Min. bending radius	installation	50mm
	operation	25mm
Max. tensile load	80N (8kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	5,9mm	
Copper conductor diameter	AWG 24	
NVP	69%	
Reaction to fire	E_{ca}	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801:2017 (Ed.1.0), EN 50173-1:2011, EN 50288-2-1:2013, ANSI/TIA 568-C.2:2009 (Ed. 2.1), IEC 61156-5:2012, IEC 60332-1-2, IEC 6134-1, IEC 6134-2, IEC 6754-2 incl. amd.1.

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

1 Gigabit | Cat.5E | 300 MHz

Eca

FTP (F/UTP) cable 4x2xAWG24, Category 5E, 300MHz, Euroclass E_{ca}

P/N: **KE300S24-Eca** 500m on reel

P/N: **KE300S24-Eca-RLX** 305m in box

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- cable shielded with AL/PET foil, PVC sheath
- enables transmission of all high-speed protocols including 1000BASE-T
- tested in bandwidth up to 300MHz
- enables RJ45 connectors to be mounted directly to the cable

Min. bending radius	installation	50mm
	operation	25mm
Max. tensile load	80N (8kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	5,9mm	
Copper conductor diameter	AWG24	
NVP	69%	
Reaction to fire	E_{ca}	
Fire safety	flame retardant	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801:2017 (Ed.1.0), EN 50173-1:2011, EN 50288-2-1:2013, ANSI/TIA 568-C.2:2009 (Ed. 2.1), IEC 61156-5:2012, IEC 60332-1-2.

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

1 Gigabit | Cat.5E | 300 MHz | OUTDOOR

Outdoor / direct burial FTP (F/UTP) 4x2xAWG24, Category 5E, 300MHz, with double-sheath

P/N: **KE300S24OUT** 500m on reel

- double sheath with total thickness of 1.65mm
- extremely resistant to mechanical damage and environmental influences
- resistant to moisture, water and UV radiation
- cable core is identical with construction of KE300S24-Eca
- enables RJ45 connectors to be mounted directly to a cable
- enables transmission of all high-speed protocols including 1000BASE-T
- tested in bandwidth up to 300MHz

Min. bending radius	installation	64mm
	operation	32mm
Max. tensile load	82N (8,2kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +75°C
Outer cable diameter	8,0mm	
Outer PE sheath thickness	1,25mm	
Inner sheath thickness	0,4mm	
Copper conductor diameter	AWG24	
NVP	69%	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801:2017 (Ed.1.0), EN 50173-1:2011, EN 50288-2-1:2013, ANSI/TIA 568-C.2:2009 (Ed. 2.1), IEC 61156-5:2012, IEC 60332-1-2.

1 Gigabit | Cat.5E | 100 MHz

Patch cable S-FTP, Category 5E

P/N: **KEN-C5E-T-005**	length 0,5m	P/N: **KEN-C5E-T-050**	length 5m
P/N: **KEN-C5E-T-010**	length 1m	P/N: **KEN-C5E-T-070**	length 7m
P/N: **KEN-C5E-T-015**	length 1,5 m	P/N: **KEN-C5E-T-100**	length 10m
P/N: **KEN-C5E-T-020**	length 2m	P/N: **KEN-C5E-T-150**	length 15m
P/N: **KEN-C5E-T-030**	length 3m		

Note: Non-standard patch cable length must be specified in the order.

- cable shielded with AL/PET foil and overall copper braid, stranded wires, PVC sheath
- connector RJ45 is compliant with IEC 60603-7 standard by its dimensions and transmission features
- enables transmission of all high-speed protocols up to 1000BASE-T
- guarantees a bandwidth of 100MHz
- shielded against electromagnetic interference

Temperature range	-25°C to +60°C	
Min. bending radius	23mm	
Outer cable diameter	5,8mm	
Copper conductor diamete	AWG26/7	
Contact pin material	phosphor-bronze alloy coated with 50µ of gold	
Insertion / extraction cycles	min. 750	
Colour	cable	gray RAL7035
	boots	gray RAL7035

1 Gigabit | Cat.5E | 100 MHz | LS0H

Patch cable FTP, Category 5E, LSOH

P/N: **KEL-C5E-F-005**	length 0,5m	P/N: **KEL-C5E-F-050**	length 5m
P/N: **KEL-C5E-F-010**	length 1m	P/N: **KEL-C5E-F-070**	length 7m
P/N: **KEL-C5E-F-015**	length 1,5m	P/N: **KEL-C5E-F-100**	length 10 m
P/N: **KEL-C5E-F-020**	length 2m	P/N: **KEL-C5E-F-150**	length 15m
P/N: **KEL-C5E-F-030**	length 3m		

Note: Non-standard patch cable colours must be specified in the order.
Non-standard patch cable length must be specified in the order.

- cable shielded with AL/PET foil, stranded wires, halogen-free sheath
- connector RJ45 is compliant with IEC 60603-7 standard by its dimensions and transmission features
- enables transmission of all high-speed protocols up to 1000BASE-T
- guarantees a bandwidth of 100MHz
- shielded against electromagnetic interference
- complies with the requirements for fire prevention arrangements in buildings with higher concentration of people

Temperature range	-20°C to +60°C	
Min. bending radius	25mm	
Outer cable diameter	5,4mm	
Copper conductor diameter	AWG26/7	
Contact pin material	phosphor-bronze alloy coated with 50µ of gold	
Insertion / extraction cycles	min. 750	
Colour (standard)	cable	gray RAL7035
	boots	gray RAL7035

Toolless field termination RJ45/s connector for Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables

10 Gigabit | Cat.6A system | 500 MHz

P/N: **KE-FT45-C6AS**

- direct termination on Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables
- tool-free, fast and easy installation
- connection of IP cameras and wireless devices without the need to use outlets and patch cords
- enables transmission of all high-speed protocols including 10GBASE-T within the system Cat.6A
- guarantees a bandwidth of 500MHz within the system Cat.6A
- perfectly shielded against Alien Crosstalk and electromagnetic interference

Suitable for installing on	cables with solid wires from AWG26 to AWG22
	cables with stranded wires from AW27 to AWG22
	from 6 to 9mm

LSA connection module

600 MHz

P/N: **KE-AD-C61S**

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- designed for reconnection of damaged cables of Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables or in case of a need to extend the link
- LSA terminals ensuring connection of cables
- guarantees a bandwidth of 600MHz
- performance category depending on a specific topology and network configuration

Suitable for cables with	solid wire from 0,40mm to 0,64mm (AWG26 to AWG22)
	outer diameter from 4,5 to 7,9mm

KELine®

KE*Line*®

1.

COPPER CABLING

Cat.5E unshielded components

1 Gigabit | Cat.5E | 100 MHz

Cat.5E unshielded components allow 1Gigabit/s transmission speed, guarantee transmission of all standardized protocols up to 1000BASE-T and ensure a bandwidth of 100MHz.

These components have been installed for more than 10 years and since 2002 represent the standardized minimum.

The components meet the bandwidth requirements of 1000BASE-T with a safety margin of over 20%.

Cat.5E unshielded components are an appropriate solution for companies with lower demands on the amount of transferred data.

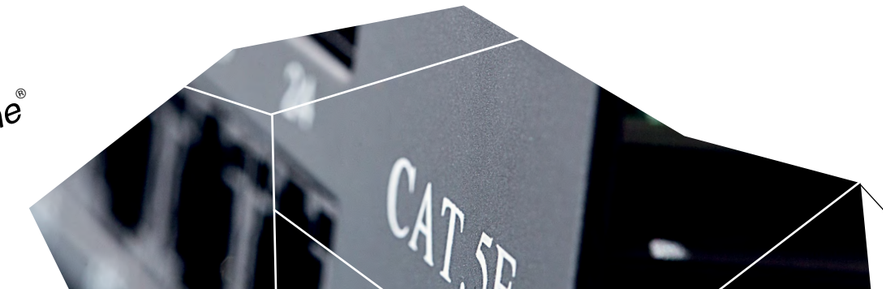
25 YEAR WARRANTY

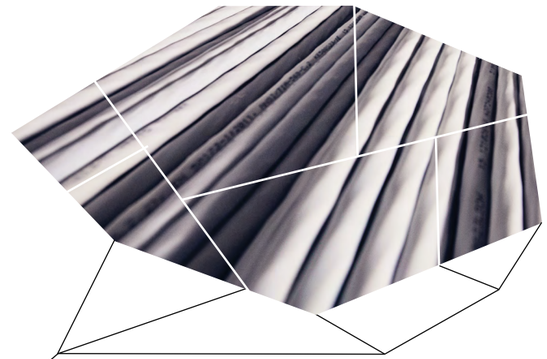
A 25-year warranty is applied on all installations completed by a certfied KE*Line*® partner.

Definitions and features

Cat.5E components comply with the requirements of Category 5 performance defined in the international standard ISO/IEC 11801:2017 (Ed. 1.0).
Unshielded cables must be installed at a distance of at least 5 times greater from power cables as compared to shielded cables.

KE*Line*®





1 Gigabit | Cat.5E | 100 MHz

Keystone Jack, Category 5E, RJ45/u

P/N: **KEJ-C5E-U-TL**

- tool-free, fast and easy installation
- enables transmission of all high-speed protocols up to 1000BASE-T
- guarantees a bandwidth of 100MHz
- not protected against electromagnetic interference
- suitable for a wide range of outlets, duct and channel systems (see page 94)

Suitable for installing on	cables with solid wires from 0,51 to 0,64mm (AWG24 to AWG22)
Required installation depth	15 - 35mm - sockets with angled faceplates
	35mm - sockets with straight faceplates
Contact pin material	phosphor-bronze alloy coated with 6µ of gold
Insertion / extraction cycles	min. 750

1 Gigabit | Cat.5E | 100 MHz

Keystone Jack, Category 5E, RJ45/u

P/N: **KEJ-C5E-U-BK**

(page 93)

- fast and easy installation using 110 or Krone® insertion tool
- 110/LSA termination blocks
- enables transmission of all high-speed protocols up to 1000BASE-T
- guarantees a bandwidth of 100 MHz
- not protected against electromagnetic interference
- suitable for a wide range of ABB outlets

Suitable for installing on	cables with solid wires from 0,51 to 0,64mm (AWG24 to AWG22)
Required installation depth	15 - 30mm - sockets with angled faceplates
	30mm - sockets with straight faceplates
Contact pin material	phosphor-bronze alloy coated with 6µ of gold
Insertion / extraction cycles	min. 750

1 Gigabit | Cat.5E | 100 MHz

Modulo50 outlet, Category 5E, 2xRJ45/u, flush-mounted, keystones included

P/N: **601140-UP + KEJ-C5E-U-TL(2)**

- 2 keystone jacks included (KEJ-C5E-U-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Colour	white RAL9010	
Surface	glossy	
Required installation depth	35mm	

1 Gigabit | Cat.5E | 100 MHz

Modulo50 outlet, Category 5E, 2xRJ45/u, wall-mounted, keystones included

P/N: **601140-AP + KEJ-C5E-U-TL(2)**

- 2 keystone jacks included (KEJ-C5E-U-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Surface mounting box	80x80x40mm	
Colour	white RAL9010	
Surface	glossy	

1 Gigabit | Cat.5E | 100 MHz

Legrand® Mosaic™ compatible outlet module, Category 5E, 2xRJ45/u, keystones included

P/N: **601122 + KEJ-C5E-U-TL(2)**

- 2 keystone jacks included (KEJ-C5E-U-TL)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078814 + 080252, 078816 + 080253, 078818 + 080254

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	30mm

1 Gigabit | Cat.5E | 100 MHz

Modulo45 outlet, Category 5E, 2xRJ45/u, flush-mounted, keystones included

P/N: **601120-UP + KEJ-C5E-U-TL(2)**

- 2 keystone jacks included (KEJ-C5E-U-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Colour	white RAL9003	
Surface	glossy	
Required installation depth	25mm	

1 Gigabit | Cat.5E | 100 MHz

Modulo45 outlet, Category 5E, 2xRJ45/u, wall-mounted, keystones included

P/N: **601120-AP + KEJ-C5E-U-TL(2)**

- 2 keystone jacks included (KEJ-C5E-U-TL)
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	81x81mm
	central module	45x45mm
Surface mounting box	81x81x40mm	
Colour	white RAL9003	
Surface	glossy	

1 Gigabit | Cat.5E | 100 MHz

Modulo45 outlet, Category 5E, 2xRJ45/u, floor / duct-mounted, keystones included

P/N: **601120 + KEJ-C5E-U-TL(2)**

- 2 keystone jacks included (KEJ-C5E-U-TL)
- angled entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Mosaic™ single and dual frames
  P/N: 078802 + 080251, 078804 + 080252, 078806 + 080253, 078808 + 080254
- suitable for duct and channel systems of other manufacturers such as Legrand, OBO Bettermann, Elektraplan Niedax, etc

Dimensions	45x45mm
Colour	white RAL9003
Surface	glossy
Required installation depth	25mm

1 Gigabit | Cat.5E | 100 MHz

Legrand® Valena™ compatible outlet module, Category 5E, 2xRJ45/u, keystones included

P/N: **601150 + KEJ-C5E-U-TL(2)**

- 2 keystone jacks included (KEJ-C5E-U-TL)
- straight entry
- each port protected with a dust-proof shutter
- fully compliant with Legrand® Valena™ single and dual frames
  P/N: 774451, 774452, 774461, 774462, 770491, 770492

** Legrand® single or double frame must be ordered separately*

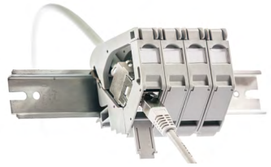
Dimensions	58x52mm
Colour	white RAL9003
Surface	glossy
Required installation depth	35mm

DIN rail keystone holder, Category 5E, 1xRJ45/u, keystone included

1 Gigabit | Cat.5E | 100 MHz

P/N: **HN-DIN-C5EU**

- 1 keystone jack included (KEJ-C5E-U-TL)
- designed for DIN rails in residential and industrial electric distribution (home networking and industrial Ethernet)
- port protected with a dust-proof shutter



1 Gigabit | Cat.5E | 100 MHz | HD HIGH DENSITY

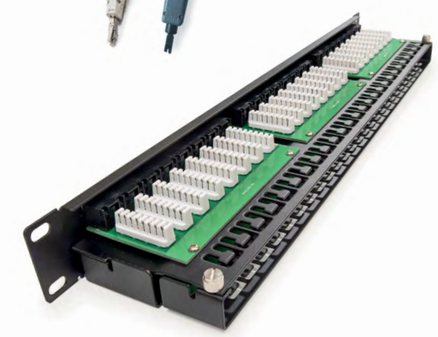
Patch panel HD, Category 5E, 48xRJ45/u

P/N: **606038**

- allows installation of 48 ports in 1U
- 110/LSA termination blocks
- fast and easy installation using 110 or Krone® insertion tool
- enables transmission of all high-speed protocols including 1000BASE-T
- guarantees a bandwidth of 100MHz
- cable ties for gripping (48 pcs)
- not protected against electromagnetic interference
- designed for 19” cabinets
- integrated cable management

Height	1U (44,5mm)
Width	19” (482,6mm)
Depth (including cable management)	89mm
Material	steel
Colour	black RAL9005
Surface	structured, matt
Suitable for cables with solid wires	from 0,51 to 0,64mm (AWG24 to AWG22)

(page 93)



1 Gigabit | Cat.5E | 100 MHz

Patch panel, Category 5E, 24xRJ45/u

P/N: **606030**

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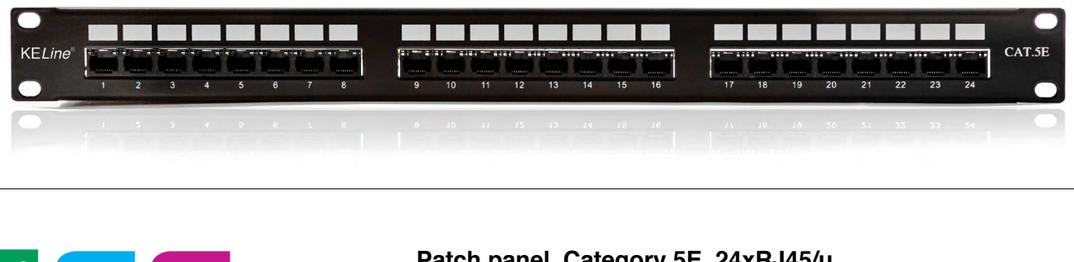
- 110/LSA termination blocks
- fast and easy installation using 110 or Krone® insertion tool
- enables transmission of all high-speed protocols including 1000BASE-T
- guarantees a bandwidth of 100MHz
- cable ties for gripping (24 pcs)
- not protected against electromagnetic interference
- designed for 19” cabinets
- integrated cable management

Height	1U (44,5mm)
Width	19” (482,6mm)
Depth (including cable management)	99,3mm
Material	steel
Colour	black RAL9005
Surface	structured, matt
Suitable for cables with solid wires	from 0,51 to 0,64mm (AWG24 to AWG22)



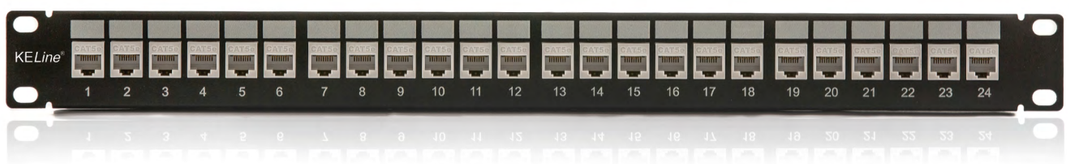
1 Gigabit | Cat.5E | 100 MHz

Patch panel, Category 5E, 24xRJ45/u, keystones included

P/N: **KEP-C5E-U-TL**

- 24 keystone jacks included (KEJ-C5E-U-TL)
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (4 pcs)
- grounding screw and washer (1 pc)

Height		1U (44,5mm)
Width		19” (482,6mm)
Depth (including cable management)		152mm
Material	front face	steel
	cable management	nickel-plated steel, corrosion-resistant
Colour		black RAL9005
Surface		structured, matt

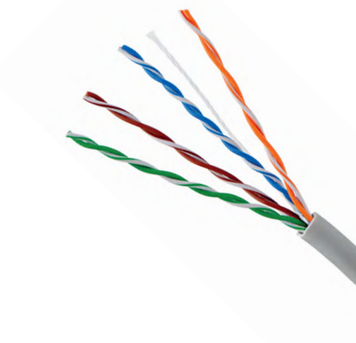


UTP (U/UTP) cable 4x2xAWG24, Category 5E, 300MHz, LSOH Euroclass E_{ca}

1 Gigabit | Cat.5E | 300 MHz | LS0H

E_{ca}

P/N: **KE300U24LSOH-Eca** 305m in box



- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- unshielded cable with halogen-free sheath
- enables transmission of all high-speed protocols including 1000BASE-T
- tested in bandwidth up to 300MHz
- enables RJ45 connectors to be mounted directly to the cable

Min. bending radius	installation	40mm
	operation	20mm
Max. tensile load	100N (10kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	5mm	
Copper conductor diameter	AWG24	
NVP	69%	
Reaction to fire	E_{ca}	
Fire safety	flame retardant, low smoke, zero halogen, non-corrosive	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801:2017 (Ed.1.0), EN 50173-1:2011, EN 50288-3-1:2013, ANSI/TIA 568-C.2:2009 (Ed. 2.1), IEC 61156-5:2012, IEC 60332-1-2, IEC 61034-1 , IEC 61034-2, IEC 60754-2.

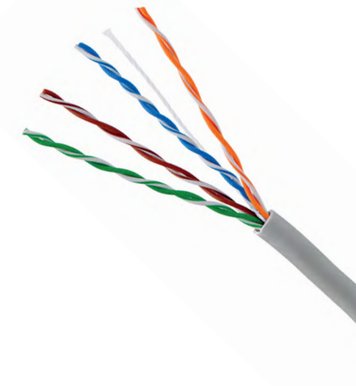
The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

UTP (U/UTP) cable 4x2xAWG24, Category 5E, 300MHz, Euroclass E_{ca}

1 Gigabit | Cat.5E | 300 MHz

E_{ca}

P/N: **799053-Eca** 305m in box



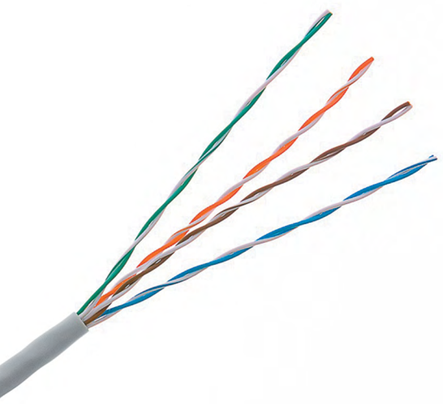
- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- unshielded cable with PVC sheath
- enables transmission of all high-speed protocols including 1000BASE-T
- tested in bandwidth up to 300MHz
- enables RJ45 connectors to be mounted directly to the cable

Min. bending radius	installation	40mm
	operation	20mm
Max. tensile load	100N (10 kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	5mm	
Copper conductor diameter	AWG24	
NVP	69%	
Reaction to fire	E_{ca}	
Fire safety	flame retardant	

This product is certified on a component level by 3P international independent laboratory according to ISO/IEC 11801:2017 (Ed.1.0), EN 50173-1:2011, EN 50288-3-1:2013, ANSI/TIA 568-C.2:2009 (Ed. 2.1), IEC 61156-5:2012, IEC 60332-1-2.

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

1 Gigabit | Cat.5E | 125 MHz



Patch cable for flexible links UTP(U/UTP), Category 5E, 125MHz, 305m in a box

P/N: **KE300U26-RLX** 305m in box

- unshielded cable with PVC sheath
- enables transmission of all high-speed protocols up to 1000BASE-T
- guarantees a bandwidth of 125MHz
- enables RJ45 connectors to be mounted directly to the cable

Min. bending radius	installation	18mm
	operation	36mm
Max. tensile load	55N (5kg)	
Temperature range	installation	0°C to +50°C
	operation	-20°C to +60°C
Outer cable diameter	4,5mm	
Copper conductor diameter	0,48mm (AWG26)	
NVP	67%	

1 Gigabit | Cat.5E | 100 MHz

Patch cable UTP, Category 5E

P/N: **KEN-C5E-U-005**	length 0,5m	P/N: **KEN-C5E-U-050**	length 5m
P/N: **KEN-C5E-U-010**	length 1m	P/N: **KEN-C5E-U-070**	length 7m
P/N: **KEN-C5E-U-015**	length 1,5m	P/N: **KEN-C5E-U-100**	length 10m
P/N: **KEN-C5E-U-020**	length 2m	P/N: **KEN-C5E-U-150**	length 15m
P/N: **KEN-C5E-U-030**	length 3m	P/N: **KEN-C5E-U-200**	length 20m

Note: Non-standard patch cable length must be specified in the order.

- unshielded cable with PVC sheath
- connector RJ45 is compliant with IEC 60603-7 standard by its dimensions and transmission features
- enables transmission of all high-speed protocols up to 1000BASE-T
- guarantees a bandwidth of 100MHz
- not protected against electromagnetic interference

Temperature range	-25°C to +60°C	
Min. bending radius	22mm	
Outer cable diameter	5,5mm	
Copper conductor diameter	AWG24/7	
Contact pin material	phosphor-bronze alloy coated with 50µ of gold	
Insertion / extraction cycles	min. 750	
Colour	cable	gray RAL7035
	boots	gray RAL7035

Toolless field termination RJ45/s connector for Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables

10 Gigabit | Cat.6A system | 500 MHz

P/N: **KE-FT45-C6AS**

- direct termination on Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables
- tool-free, fast and easy installation
- connection of IP cameras and wireless devices without the need to use outlets and patch cords
- enables transmission of all high-speed protocols including 10GBASE-T within the system Cat.6A
- guarantees a bandwidth of 500MHz within the system Cat.6A
- perfectly shielded against Alien Crosstalk and electromagnetic interference

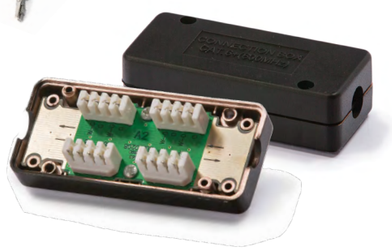
Suitable for installing on	cables with solid wires from AWG26 to AWG22
	cables with stranded wires from AWG27 to AWG22
	from 6 to 9mm

LSA connection module

600 MHz

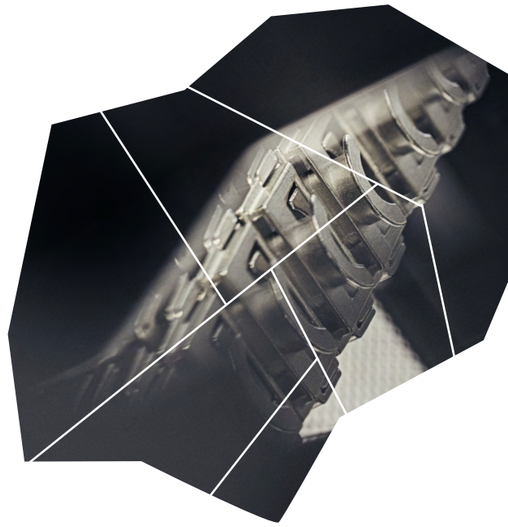
P/N: **KE-AD-C61S**

(page 93)



- designed for reconnection of damaged cables of Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables or in case of a need to extend the link
- LSA terminals ensuring connection of cables
- guarantees a bandwidth of 600MHz
- performance category depending on a specific topology and network configuration

Suitable for cables with	solid wire from 0,40mm to 0,64mm (AWG26 to AWG22)
	outer diameter from 4,5 to 7,9mm



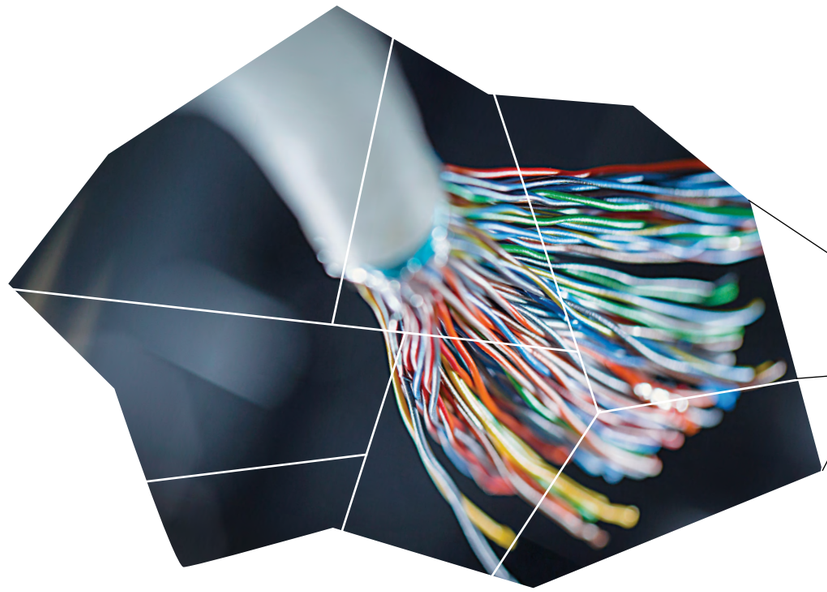
KE*Line*®

1.

COPPER CABLING

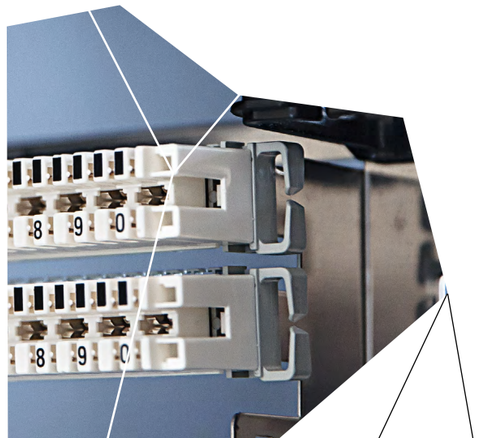
Cat.3 components

These components provide integration of all analogue and digital voice protocols into structured cabling.



25 YEAR WARRANTY

A 25-year warranty is applied on all installations completed by a certfied KE*Line*® partner.



Cat.3 | 16 MHz

Patch panel, Category 3, 50xRJ45/u

P/N: **509020**

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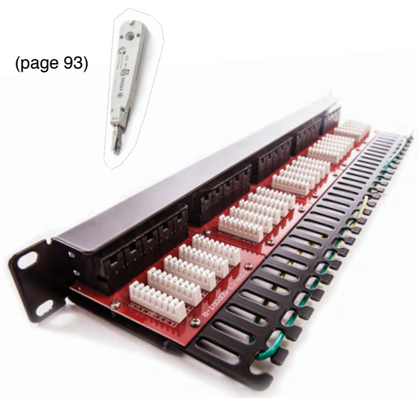
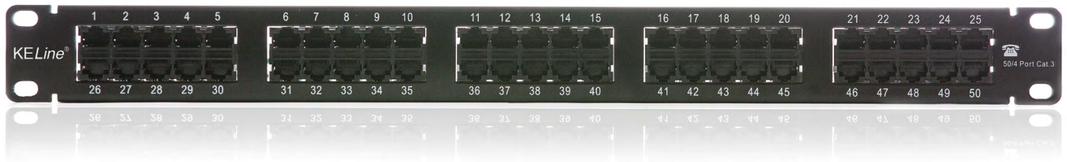


- LSA termination blocks
- fast and easy installation using Krone® insertion tool
- connects voice services from backbone networks into the structured cabling
- enables transmission of all analog and digital voice protocols excluding IP telephony
- guarantees a bandwidth of 16MHz
- cable ties for gripping (25 pcs)
- designed for 19” cabinets
- integrated cable management

Height	1U (44,5mm)
Width	19” (482,6mm)
Depth (including cable management)	125mm
Material	steel
Colour	black RAL9005
Surface	structured, matt
Suitable for cables with solid wires	from 0,41 to 0,64mm (AWG26 to AWG22)



Cat.3 | 16 MHz

Patch panel, Category 3, 25xRJ45/u

P/N: **T-3259**

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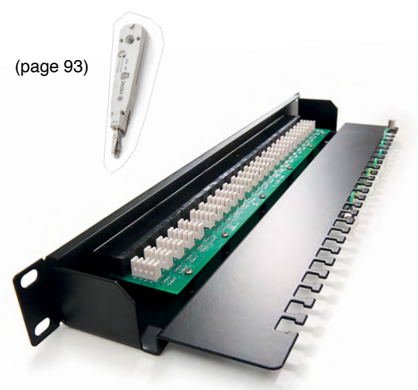
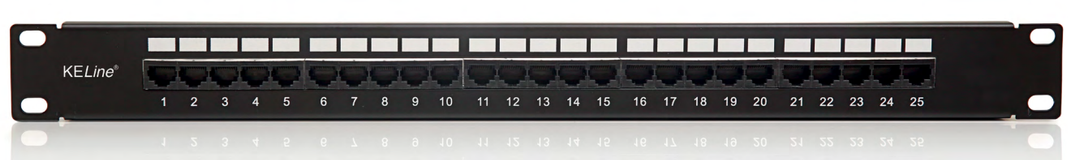


- LSA termination blocks
- fast and easy installation using Krone® insertion tool
- connects voice services from backbone networks into the structured cabling
- enables transmission of all analog and digital voice protocols excluding IP telephony
- guarantees a bandwidth of 16MHz
- cable ties for gripping (25 pcs)
- designed for 19” cabinets
- integrated cable management

Height	1U (44,5mm)
Width	19” (482,6mm)
Depth (including cable management)	133mm
Material	steel
Colour	black RAL9005
Surface	structured, matt
Suitable for cables with solid wires	from 0,41 to 0,64mm (AWG26 to AWG22)



Multipair telephone cable, 50x2x0,5, Euroclass F_{ca}

P/N: **SYKFY50**

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- cable shielded with AL/PET foil, PVC sheath
- suitable for indoor backbone voice network
- enables transmission of all analog and digital voice protocols excluding IP telephony

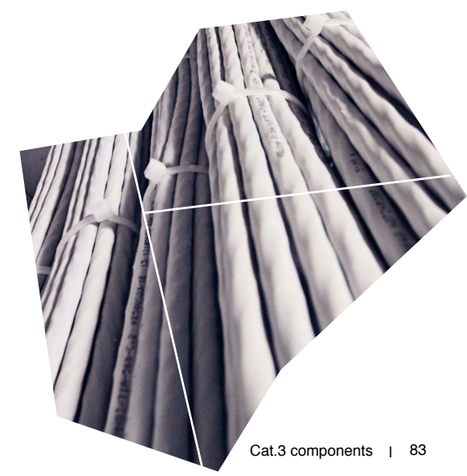
Min. bending radius	installation	170mm
	operation	70mm
Temperature range	operation	-5°C to +50°C
	operation	-30°C to +70°C
Outer cable diameter	17mm	
Copper conductor diameter	0,5mm	
Colour identification	EN 60446	
Reaction to fire	F_{ca}	
Fire safety	flame retardant	

Multipair telephone cable, 25x2x0,5, Euroclass F_{ca}

P/N: **SYKFY25**

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- cable shielded with AL/PET foil, PVC sheath
- suitable for indoor backbone voice network
- enables transmission of all analog and digital voice protocols excluding IP telephony

Min. bending radius	installation	110mm
	operation	45mm
Temperature range	operation	-5°C to +50°C
	operation	-30°C to +70°C
Outer cable diameter	11mm	
Copper conductor diameter	0,5mm	
Colour identification	EN 60446	
Reaction to fire	F_{ca}	
Fire safety	flame retardant	



Other components and accessories

Modulo50 outlet, 3 ports, flush-mounted, empty

P/N: **601143-UP**

- designed for 3 keystone jacks RJ45
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Colour	white RAL9010	
Surface	glossy	
Required installation depth	KEJ-C6A-S-HD	35mm
	KEJ-C6A-S-10G	40mm
	KEJ-C6A-S-HD 90	30mm
	KEJ-CEA-S-10G	40mm
	KEJ-C6-S-TL	40mm
	KEJ-C6-U-TL	35mm
	KEJ-C5E-S-TL	40mm
	KEJ-C5E-U-TL	35mm

Modulo50 outlet, 3 ports, wall-mounted, empty

P/N: **601143-AP**

- designed for 3 keystone jacks RJ45
- angled entry
- each port protected with a dust-proof shutter

Dimensions	frame	80x80mm
	central module	50x50mm
Surface mounting box	80x80x40mm	
Colour	white RAL9010	
Surface	glossy	

Surface box, 2 ports, wall-mounted, empty

P/N: **KE-SMB02-W**

- designed for 2 keystone jacks RJ45
- straight entry

Dimensions (H x W x D)	64x68x30mm
Material	plastic
Colour	white
Surface	matt

Surface box, 6 ports, wall-mounted, empty

P/N: **KE-SMB06-W**

- designed for 6 keystone jacks RJ45
- can be used as consolidation point or mini patch panel
- straight entry

Dimensions (H x W x D)	83x168x30mm
Material	plastic
Colour	white
Surface	matt

Compact box, 8 ports, empty

P/N: **KE-KB08-B**

- mini patch panel for 8 keystone jacks RJ45
- suitable as a consolidation point
- integrated cable management
- an option to bring a cable from the bottom or back of the compact box

Dimensions (H x W x D)	44x165x110mm
Material	steel / PVC
Colour	black
Surface	matt

UK style faceplate, 1 port, flush-mounted, empty

P/N: **600186-UP**

- designed for 1 keystone jack RJ45
- streight entry
- port protected with a dust-proof shutter

Dimensions	frame	86x86mm
Colour	white RAL9010	
Surface	glossy	
Required installation depth	42mm	

UK style faceplate, 2 ports, flush-mounted, empty

P/N: **600286-UP**

- designed for 2 keystone jacks RJ45
- streight entry
- each port protected with a dust-proof shutter

Dimensions	frame	86x86mm
Colour	white RAL9010	
Surface	glossy	
Required installation depth	42mm	

US style vertical faceplate, 1 port, flush-mounted, empty

P/N: **KE-FPV-1PA**

- designed for 1 keystone jack RJ45
- angled entry

Height	114mm
Width	70mm
Material	plastic
Colour	white RAL 9010
Surface	glossy

US style horizontal faceplate, 1 port, flush-mounted, empty

P/N: **KE-FPH-1P**

- designed for 1 keystone jack RJ45
- straight entry

Height	70mm
Width	114mm
Material	plastic
Colour	white RAL 9010
Surface	glossy

US style vertical faceplate, 1 port, wall-mounted, empty

P/N: **KE-FPV-1PAC**

- designed for 1 keystone jack RJ45
- angled entry

Height	114mm
Width	70mm
Depth	48mm
Material	plastic
Colour	white RAL 9010
Surface	glossy

US style horizontal faceplate, 1 port, wall-mounted, empty

P/N: **KE-FPH-1PC**

- designed for 1 keystone jack RJ45
- straight entry

Height	70mm
Width	114mm
Depth	48mm
Material	plastic
Colour	white RAL 9010
Surface	glossy

US style vertical faceplate, 2 ports, flush-mounted, empty

P/N: **KE-FPV-2PA**

- designed for 2 keystone jacks RJ45
- angled entry

Height	114mm
Width	70mm
Material	plastic
Colour	white RAL 9010
Surface	glossy

US style horizontal faceplate, 2 ports, flush-mounted, empty

P/N: **KE-FPH-2P**

- designed for 2 keystone jacks RJ45
- straight entry

Height	70mm
Width	114mm
Material	plastic
Colour	white RAL 9010
Surface	glossy

US style vertical faceplate, 2 ports, wall-mounted, empty

P/N: **KE-FPV-2PAC**

- designed for 2 keystone jacks RJ45
- angled entry

Height	114mm
Width	70mm
Depth	48mm
Material	plastic
Colour	white RAL 9010
Surface	glossy

US style horizontal faceplate, 2 ports, wall-mounted, empty

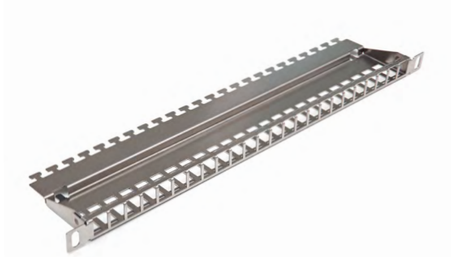
P/N: **KE-FPH-2PC**

- designed for 2 keystone jacks RJ45
- straight entry

Height	70mm
Width	114mm
Depth	48mm
Material	plastic
Colour	white RAL 9010
Surface	glossy

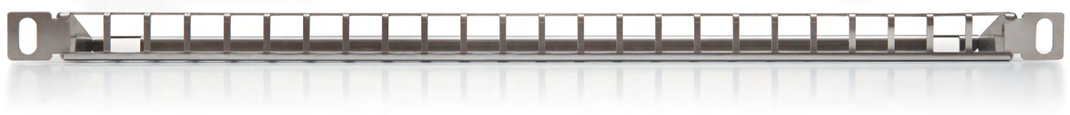
Patch panel HD for 24xRJ45, silver, empty, 0,5U

P/N: **KEP-EMPTY-HD**



- enables to install 24 modules into 0,5U and achieve a high density of up to 48 ports on 1U
- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (2 pcs)
- two grounding pegs (on left and right sides)

Height	0,5U (22mm)
Width	19” (482,6mm)
Depth (including cable management)	100mm
Material	stainless steel
Colour	silver
Surface	glossy

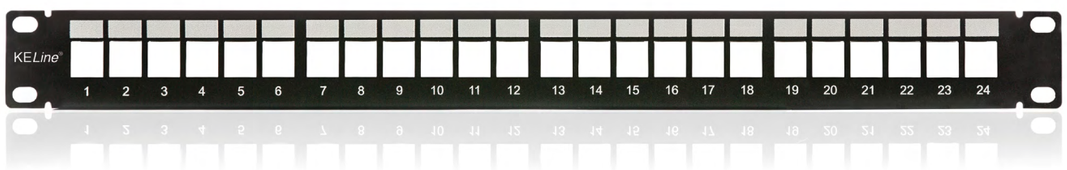


Patch panel for 24xRJ45, empty

P/N: **KEP-EMPTY-S**

- designed for 19” cabinets
- integrated cable management
- cable ties for gripping (24 pcs)
- set of M6 screws and captive nuts (4 pcs)
- grounding screw and washer (1 pc)

Height		1U (44,5mm)
Width		19” (482,6mm)
Depth (including cable management)		152mm
Material	front face	steel
	cable management	nickel-plated steel, corrosion-resistant
Colour		black RAL9005
Surface		structured, matt



Labeling strip for KEP-EMPTY-HD

P/N: **KEP-PRINT-HD**

- used for labeling of ports 1-24 for patch panel KEP-C8-S-HD-05, KEP-C6A-S-HD-05 and KEP-EMPTY-HD
- enables individual port identification by label printer with a tape width of 6mm

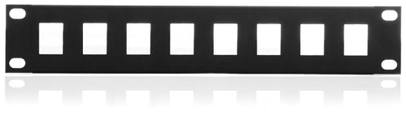
Height	0,5U (22mm)
Width	19” (482,6mm)
Description field	430 x 6mm
Material	stainless steel
Colour	silver
Surface	glossy

10” patch panel for 8xRJ45, empty

P/N: **RAB-PP-X01-C4**

- designed for 10” cabinets
- integrated cable management
- set of M6 screws and captive nuts (4 pcs)

Height	1U (44,5mm)
Width	10” (254mm)
Depth (including cable management)	66mm
Material	steel
Colour	black RAL9005
Surface	structured, matt



Adapter for OBO Bettermann floor boxes for 9xRJ45, empty

P/N: **KE-9FB**

Height	213mm
Width	75mm
Material	steel
Colour	black
Surface	matt

Adapter for OBO Bettermann floor boxes, for 6xRJ45, empty

P/N: **KE-6FB**

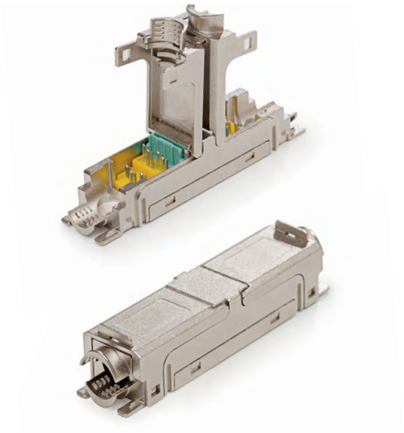
Height	173mm
Width	75mm
Material	steel
Colour	black
Surface	matt

10 Gigabit | Cat.6$_A$ Interoperable | 500 MHz

HD HIGH DENSITY

Connection module HD, Category 6$_A$

P/N: **KE-EXT-HD**



- designed for reconnecting damaged cables or in case of necessity to extend the link
- low profile design
- tool-free, fast and easy installation
- enables transmission of all high-speed protocols including 10GBASE-T
- guarantees a bandwidth of 500MHz
- perfectly shielded against Alien Crosstalk and electromagnetic interference
- applicable on cables with solid wires

Suitable for cables with	solid wire from AWG24 to AWG22
	outer diameter 5 - 9,5mm
Contact pin material	phosphor-bronze alloy coated with 50µ of gold

10 Gigabit | Cat.6A system | 500 MHz

Toolless field termination RJ45/s connector for Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables

P/N: **KE-FT45-C6AS**

- direct termination on Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables
- tool-free, fast and easy installation
- connection of IP cameras and wireless devices without the need to use outlets and patch cords
- enables transmission of all high-speed protocols including 10GBASE-T within the system Cat.6A
- guarantees a bandwidth of 500MHz within the system Cat.6A
- perfectly shielded against Alien Crosstalk and electromagnetic interference

Suitable for installing on	cables with solid wires from AWG26 to AWG22
	cables with stranded wires from AWG27 to AWG22
	from 6 to 9mm

600 MHz

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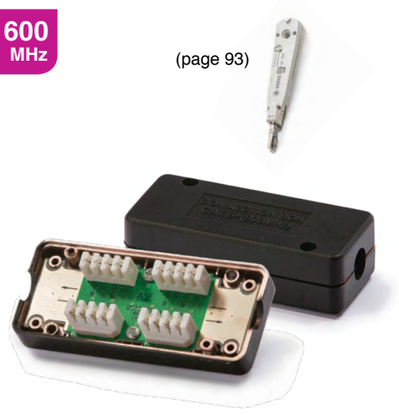
LSA connection module

P/N: **KE-AD-C61S**



- designed for reconnecting damaged cables of Cat.7$_A$, Cat.7, Cat.6$_A$, Cat.6, Cat.5E cables or in case of necessity to extend the link
- LSA terminals ensuring connection of cables
- guarantees a bandwidth of 600MHz
- performance category depending on a specific topology and network configuration

Suitable for cables with	solid wire from 0,40mm to 0,64 mm (AWG26 to AWG22)
	outer diameter from 4,5 to 7,9mm

Connector RJ45/s, 8p8c, 50µ Au, universal

1 Gigabit | Cat.5E | 100 MHz

P/N: **58G6912U**

- suitable for cables with stranded as well as solid wires
- shielded against electromagnetic interference
- meets IEC 60603-7 standard by dimensions and transmission features

Suitable mounting on	cables with solid wires from 0,41mm to 0,51mm (AWG26 to AWG24)
	cables with stranded wires from AWG26 to AWG24
	cables with outer diameter from 4,5mm to 8mm
Pin material	copper alloy coated with 50µ of gold
Insertion / extraction cycles	min. 750

Connector RJ45/u, 8p8c, 50µ Au, universal

1 Gigabit | Cat.5E | 100 MHz

P/N: **MP-RJ45-8P8CU**

- suitable for cables with stranded as well as solid wires
- not protected against electromagnetic interference
- meets IEC 60603-7 standard by dimensions and transmission features

Suitable mounting on	cables with stranded wires from AWG26 to AWG24
	cables with outer diameter from 4,5mm to 8mm
Pin material	copper alloy coated with 50µ of gold
Insertion / extraction cycles	min. 750

Strain relief boots for connector RJ45

P/N: **MP-SR-G4**

Note: Non-standard colours must be specified in the order (blue, green, yellow, black, red)

- protects the connection between the cable and connector when bending at the point of the greatest stress
- usage of different colours simplifies the orientation in the connection field

Colour (standard)	gray RAL7035

Keystone blind cover for patch panels and outlets

P/N: **511119**

- designed to cover empty ports of patch panels or outlets

Colour	white RAL9003

1.
COPPER CABLING

Tools

Link tester for structured cabling and patch cables

P/N: **LANTEST**

- verifies links (e.g. outlet-patch panel), correctness of wiring and patch cables testing

Professional crimping tool for connectors RJ11, RJ45 IDEAL®

P/N: **30-696**

- for crimping of modular plugs RJ11 and RJ45
- built-in knife for wires alignment

Crimping tool for connectors RJ11, RJ14, RJ45

P/N: **HT-2008AR**

- for crimping of modular plugs RJ11,RJ14 and RJ45
- built-in knife for wires alignment and outer isolation removal

Crimping tool for connector RJ45

P/N: **HT-210C**

- for crimping of modular plugs RJ45
- built-in knife for wires alignment and outer isolation removal

Professional parallel pliers KNIPEX®

P/N: **KE-8603180**

- for installation of Keystone Jack HD

Cutting pliers

P/N: **HT-1091**

- designed for reduction and removal of execesive wires when terminating

Suitable for cables	up to Cu 1mm (AWG 18)

Stripper

P/N: **HT-S501A**

- designed for removal of sheath and wire isolation
- suitable for all types of shielded and unshielded data cables

Suitable for cables	3,5 - 9 mm

Insertion tool LSA Krone®

P/N: **64172055-01**

- designed for inserting LSA blocks in patch panels and outlets
- built-in scissors included
- built-in hook for tracking and removing wires

Insertion tool 110 IDC

P/N: **HT-914B**

- designed for inserting 110 IDC blocks in patch panels and outlets

Cable reel uncoiler

P/N: **OKC**

- useful assistant for unwinding of optical or metallic cables on coils
- rubber legs ensure stability when uncoiling the cable
- very easy to use and setup
- light construction
- saves time during installation

Fiber optic visual fault locator

P/N: **KE-VFL**

- tool designed for locating optical cable errors
- laser performace - output power 10mW (max. 18mW)
- wavelenght 650nm
- suitable for connectors with diameter ferrule 2,5mm and 1,25mm

Compatibility with other brands' mounting hardware

Keystone jack compatibility with other brands' outlets, ducts and floor boxes

brand	type	KEJ-C8-S-HD	KEJ-C6A-S-HD	KEJ-C6A-S-10G	KEJ-C6A-S-HD 90	KEJ-CEA-S-10G	KEJ-C6-S-TL	KEJ-C6-U-TL	KEJ-C5E-S-TL	KEJ-C5E-U-TL
ABB	Swing, Swing L	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Levit	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Tango	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Neo, Neo Tech	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Element, Time, Time Arbo	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Decento	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Future linear, Solo, Solo carat	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Alpha Exclusive	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Impuls	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Basic 55	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Reflex SI	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Reflex SI angled	☎	☎	☎	☎	☎	☎	☎	☎	☎
Legrand	Mosaic	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Valena	×	×	✔	×	✔	✔	✔	✔	✔
	Valena Life	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Niloe	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Prodax	×	×	✔	×	✔	✔	✔	✔	✔
	DLP ducts	✔	✔	✔	✔	✔	✔	✔	✔	✔
	floor boxes	✔	✔	✔	✔	✔	✔	✔	✔	✔
NIKO	Original	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Intense	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Pure	✔	✔	✔	✔	✔	✔	✔	✔	✔
OBO Bettermann	Rapid 45 / GEK-K 53100 / GEK-K 53160	✔	✔	✔	✔	✔	✔	✔	✔	✔
	floor boxes	✔	✔	✔	✔	✔	✔	✔	✔	✔
GIRA	Standard 55	✔	✔	✔	☎	✔	✔	✔	✔	✔
	E2	✔	✔	✔	☎	✔	✔	✔	✔	✔
	Event	✔	✔	✔	☎	✔	✔	✔	✔	✔
	Esprit	✔	✔	✔	☎	✔	✔	✔	✔	✔
	ClassiX	✔	✔	✔	☎	✔	✔	✔	✔	✔
	E22	✔	✔	✔	☎	✔	✔	✔	✔	✔
Schneider Electric	Altira	✔	✔	✔	☎	✔	✔	✔	✔	✔
	Anya	☎	☎	☎	☎	☎	☎	☎	☎	☎
	Asfora	☎	☎	☎	☎	☎	☎	☎	☎	☎
	Merten	✔	✔	✔	☎	✔	✔	✔	✔	✔
	Sedna	☎	☎	☎	☎	☎	☎	☎	☎	☎
	Unica	✔	✔	✔	☎	✔	✔	✔	✔	✔
Niedax	floor boxes	☎	☎	☎	☎	☎	☎	☎	☎	☎

ABB Tango

ABB Time

ABB Impuls

ABB Aplha Exclusive

ABB Decento

ABB Element

ABB Swing

ABB Future Linear

ABB Basic 55

ABB NEO

ABB Reflex SI

ABB Reflex SI angled

Legrand Mosaic

Legrand Valena

Legrand Valena Life

Legrand Prodax

Niko Pure

Niko Intense

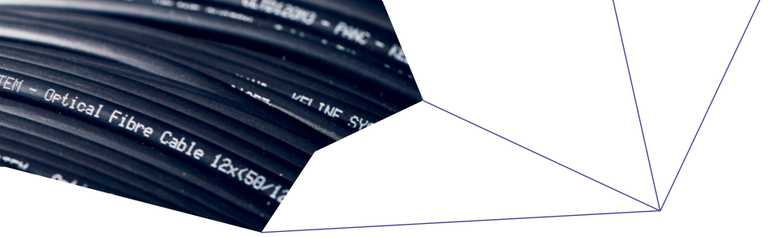
Niko Original

Gira E2

Schneider Unica

Schneider Sedna

Schneider Anya



2.

OPTICAL CABLING

97. Knowledge base

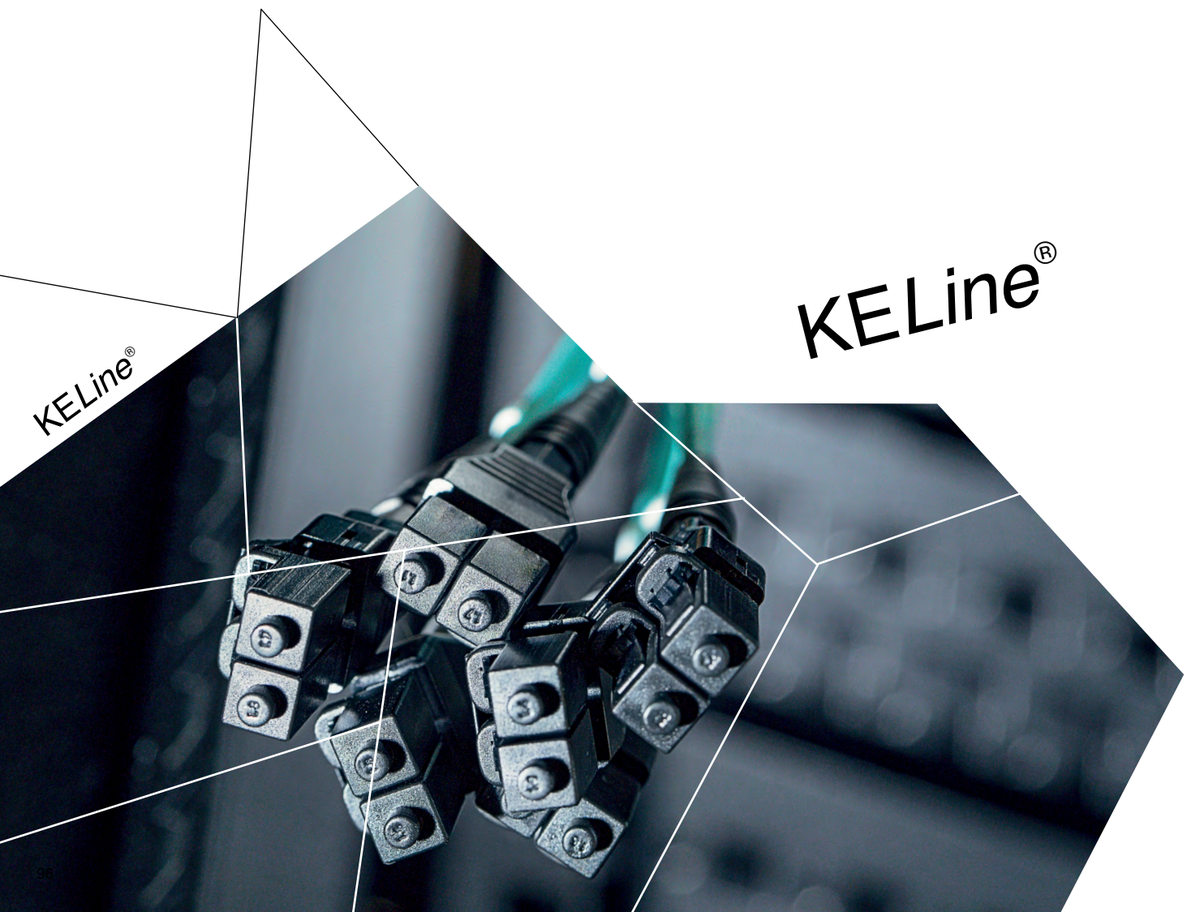
98. Optical cables

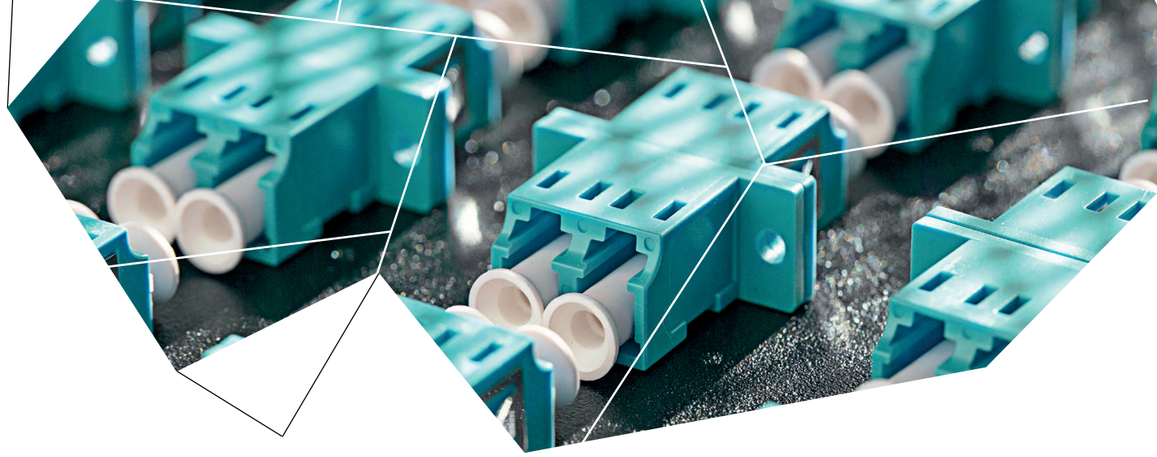
105. Pigtails

107. Patch cords

112. Adapters

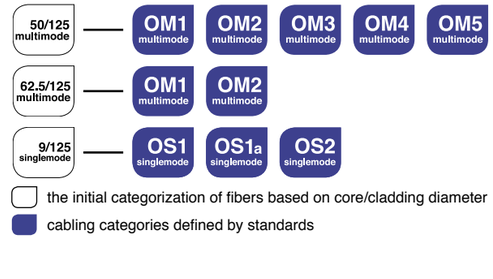
114. Patch panels, distribution boxes and additional material





Knowledge base

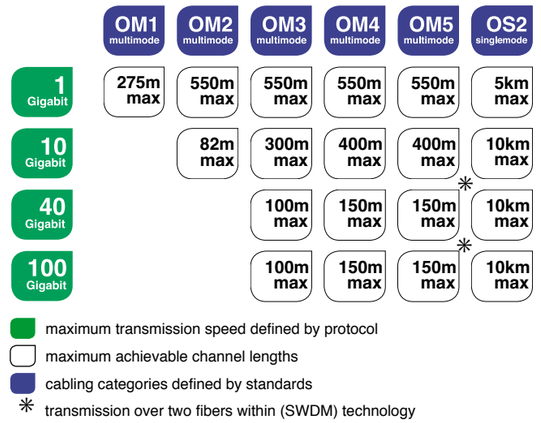
Recent high-speed protocols for optical cabling have triggered the development of new types of optical fibers and their new categorization. The initial categorization of fibers was based on glass core/cladding diameter: 50/125µm, 62,5/125µm or 9/125µm. Nowadays fibers have different transmission characteristics in spite of the same glass geometry. International standard have therefore introduced a new classification based on the performance level of the fiber. The diagram illustrates a relationship between the initial categorization and the new categories defined by standards.



Performance level is determined by the maximum transmission speed. Protocols ensuring these transmission speeds are supported in each category over different channel lengths.

When deciding for an optical cabling it is necessary to keep in mind the desired transmission speed and the maximum channel length (the longest segment of cabling).

The diagram below illustrates standardized transmission protocols (excluding proprietary applications) used in structured cabling and aims to simplify the selection of a suitable optical fibre.



2.
OPTICAL CABLING

Optical cables

The principles of optical cabling selection in terms of performance and transmission properties are described on page 97. This applies to all components: cables, pigtails, adapters and patch cords.

When choosing cables, it is necessary to consider the selection of their construction, which must comply with the operational and installation conditions.
The icons indicate the most important selection criteria and aim to simplify the selection among the variety of fiber optic cable contruction.

INDOOR OUTDOOR — Optical cable is suitable for indoor environment and complies with all fire and safety regulations in buildings. In addition, due to its temperature range, resistance to moisture, water and UV radiation, this cable is suitable for outdoor use.

OUTDOOR — Due to its temperature range, resistance to moisture, water and UV radiation this cable is suitable for outdoor use.

LS0H — Halogen-free cable designed for areas with higher concentration of people and areas with important electronic devices.

Armoured cable suitable for direct burial campus backbone applications, cable channels and cable bridges without the need for additional protection. Designed for heavy industrial environments where there is an increased risk of a mechanical damage.

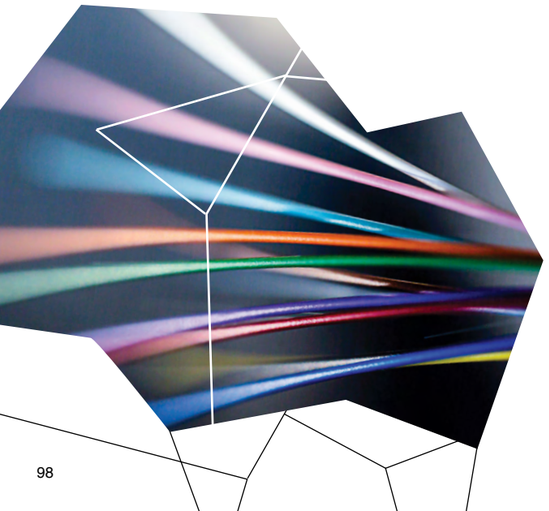
GRP — Cable with a basic rodent protection.

Cable with 100% rodent protection.

E_{ca} — Reaction to fire class of the cable.

180 min. — Fire resistant cable with indicated fire resistancy time.

25 YEAR WARRANTY — A 25-year warranty is applied on all installations completed by a certfied KE*Line*® partner.



Universal distribution tight buffered cables, Euroclass $B2_{ca}$ - s1, d1, a1

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- fully dielectric and gel-free construction, halogen-free sheath
- tensile elements made of glass yarns
- primary protection of 250µm, tight buffered secondary protection of 900µm
- suitable for outdoor as well as for indoor environments
- resistant to moisture, water and UV radiation
- partial rodent protection (glass rodent protection - GRP)

Temperature range	installation	-10°C to +60°C
	operation	-20°C to +60°C
Reaction to fire	$B2_{ca}$ - s1, d1, a1	

12 fibers

P/N: **TB12OM3-B2ca (TBA)** OM3 multimode 50/125μm
P/N: **TB12OS2-B2ca (TBA)** OS2 singlemode 9/125μm (ITU-T G.652.D)

Min. bending radius	installation	112mm
	operation	75mm
Max. tensile load	installation	1600N (160kg)
	operation	520N (52kg)
Outer cable diameter	7,5mm	
Weight	62kg/km	

24 fibers

P/N: **TB24OM3-B2ca (TBA)** OM3 multimode 50/125μm
P/N: **TB24OS2-B2ca (TBA)** OS2 singlemode 9/125μm (ITU-T G.652.D)

Min. bending radius	installation	140mm
	operation	93mm
Max. tensile load	installation	2300N (230kg)
	operation	760N (76kg)
Outer cable diameter	9,3mm	
Weight	89kg/km	

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

Universal distribution tight buffered cables, Euroclass E_{ca}

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- fully dielectric and gel-free construction, halogen-free sheath
- tensile elements made of glass yarns
- primary protection of 250µm, tight buffered secondary protection of 900µm
- suitable for outdoor as well as for indoor environment
- resistant to moisture, water and UV radiation
- partial rodent protection (glass rodent protection - GRP)

Temperature range	installation	-10°C to +60°C
	operation	-20°C to +60°C
Reaction to fire	E_{ca}	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OS2 singlemode

4 fibers

P/N: **TB04OM1-Eca**	OM1 multimode 62,5/125µm
P/N: **TB04OM2-Eca**	OM2 multimode 50/125µm
P/N: **TB04OM3-Eca**	OM3 multimode 50/125µm
P/N: **TB04OM4-Eca**	OM4 multimode 50/125µm
P/N: **TB04OS2-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	82,5mm
	operation	55mm
Max. tensile load	installation	1000N (100kg)
	operation	400N (40kg)
Outer cable diameter	5,5mm	
Weight	33kg/km	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OS2 singlemode

8 fibers

P/N: **TB08OM1-Eca**	OM1 multimode 62,5/125µm
P/N: **TB08OM2-Eca**	OM2 multimode 50/125µm
P/N: **TB08OM3-Eca**	OM3 multimode 50/125µm
P/N: **TB08OM4-Eca**	OM4 multimode 50/125µm
P/N: **TB08OS2-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	97,5mm
	operation	65mm
Max. tensile load	installation	1500N (150kg)
	operation	441N (44kg)
Outer cable diameter	6,5mm	
Weight	45kg/km	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OS2 singlemode

12 fibers

P/N: **TB12OM1-Eca**	OM1 multimode 62,5/125µm
P/N: **TB12OM2-Eca**	OM2 multimode 50/125µm
P/N: **TB12OM3-Eca**	OM3 multimode 50/125µm
P/N: **TB12OM4-Eca**	OM4 multimode 50/125µm
P/N: **TB12OS2-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	106,5mm
	operation	71mm
Max. tensile load	installation	1600N (160kg)
	operation	519N (51kg)
Outer cable diameter	7,1mm	
Weight	53kg/km	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OS2 singlemode

24 fibers

P/N: **TB24OM1-Eca**	OM1 multimode 62,5/125µm
P/N: **TB24OM2-Eca**	OM2 multimode 50/125µm
P/N: **TB24OM3-Eca**	OM3 multimode 50/125µm
P/N: **TB24OM4-Eca**	OM4 multimode 50/125µm
P/N: **TB24OS2-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	133,5mm
	operation	89mm
Max. tensile load	installation	2300N (230kg)
	operation	765N (76kg)
Outer cable diameter	8,9mm	
Weight	78kg/km	

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

Universal central loose tube cables, Euroclass E_{ca}

INDOOR OUTDOOR | GRP | LS0H | E_{ca}

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- fully dielectric construction, halogen-free and fire retardant sheath
- tensile elements made of water blocking glass yarns
- primary protection of 250µm
- central loose tube filled with water blocking gel
- suitable for outdoor as well as for indoor environment
- resistant to moisture, water and UV radiation
- partial rodent protection (glass rodent protection - GRP)
- ideal for horizontal campus duct installations using blowing and pulling technique

Temperature range	installation	-30°C to +40°C
	operation	-30°C to +60°C
Reaction to fire	E_{ca}	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode | OS2 singlemode

4 fibers

P/N: **CLTD04OM1-Eca**	OM1 multimode 62,5/125µm
P/N: **CLTD04OM2-Eca**	OM2 multimode 50/125µm
P/N: **CLTD04OM3-Eca**	OM3 multimode 50/125µm
P/N: **CLTD04OM4-Eca**	OM4 multimode 50/125µm
P/N: **CLTD04OM5-Eca**	OM5 multimode 50/125µm
P/N: **CLTD04OS2-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	90mm
	opeartion	60mm
Max. tensile load	installation	1000N (100kg)
Outer cable diameter	6,0mm	
Weight	40kg/km	
Number of tubes x number of fibers	1 x 4	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode | OS2 singlemode

8 fibers

P/N: **CLTD08OM1-Eca**	OM1 multimode 62,5/125µm
P/N: **CLTD08OM2-Eca**	OM2 multimode 50/125µm
P/N: **CLTD08OM3-Eca**	OM3 multimode 50/125µm
P/N: **CLTD08OM4-Eca**	OM4 multimode 50/125µm
P/N: **CLTD08OM5-Eca**	OM5 multimode 50/125µm
P/N: **CLTD08OS2-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	90mm
	opeartion	60mm
Max. tensile load	installation	1000N (100kg)
Outer cable diameter	6,0mm	
Weight	40kg/km	
Number of tubes x number of fibers	1 x 8	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode | OS2 singlemode

12 fibers

P/N: **CLTD12OM1-Eca**	OM1 multimode 62,5/125µm
P/N: **CLTD12OM2-Eca**	OM2 multimode 50/125µm
P/N: **CLTD12OM3-Eca**	OM3 multimode 50/125µm
P/N: **CLTD12OM4-Eca**	OM4 multimode 50/125µm
P/N: **CLTD12OM5-Eca**	OM5 multimode 50/125µm
P/N: **CLTD12OS2-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	90mm
	opeartion	60mm
Max. tensile load	installation	1000N (100kg)
Outer cable diameter	6,0mm	
Weight	40kg/km	
Number of tubes x number of fibers	1 x 12	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode | OS2 singlemode

24 fibers

P/N: **CLTD24OM1-Eca**	OM1 multimode 62,5/125µm
P/N: **CLTD24OM2-Eca**	OM2 multimode 50/125µm
P/N: **CLTD24OM3-Eca**	OM3 multimode 50/125µm
P/N: **CLTD24OM4-Eca**	OM4 multimode 50/125µm
P/N: **CLTD24OM5-Eca**	OM5 multimode 50/125µm
P/N: **CLTD24OS2-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	100mm
	opeartion	65mm
Max. tensile load	installation	1000N (100kg)
Outer cable diameter	6mm	
Weight	45kg/km	
Number of tubes x number of fibers	1 x 24	

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

INDOOR OUTDOOR | GRP | LSFR0H

180 min.

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OS2 singlemode

Fire-resistant universal central loose tube cables 180min. at 750°C

- fire-resistant (180 min. at 750°C) according to standards EN 60331-11: 01, EN 60331-25: 01
- fully dielectric construction, halogen-free and fire retardant sheath
- tensile elements made of water blocking glass yarns
- primary protection of 250µm
- central loose tube filled with water blocking gel
- suitable for outdoor as well as for indoor environments
- resistant to moisture, water and UV radiation
- partial rodent protection (glass rodent protection - GRP)
- ideal for horizontal campus duct installations using blowing and pulling technique

Temperature range	installation	-5 C to +50°C
	operation	-20°C to +70°C

4 fibers

P/N: **CLTFR04OM1**	OM1 multimode 62,5/125µm
P/N: **CLTFR04OM2**	OM2 multimode 50/125µm
P/N: **CLTFR04OM3**	OM3 multimode 50/125µm
P/N: **CLTFR04OM4**	OM4 multimode 50/125µm
P/N: **CLTFR04OS2**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	140mm
	opeartion	105mm
Max. tensile load	installation	2000N (200kg)
Outer cable diameter	7mm	
Weight	58kg/km	
Number of tubes x number of yarns	1 x 4	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OS2 singlemode

8 fibers

P/N: **CLTFR08OM1**	OM1 multimode 62,5/125µm
P/N: **CLTFR08OM2**	OM2 multimode 50/125µm
P/N: **CLTFR08OM3**	OM3 multimode 50/125µm
P/N: **CLTFR08OM4**	OM4 multimode 50/125µm
P/N: **CLTFR08OS2**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	140mm
	opeartion	105mm
Max. tensile load	installation	2000N (200kg)
Outer cable diameter	7mm	
Weight	58kg/km	
Number of tubes x number of yarns	1 x 8	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OS2 singlemode

12 fibers

P/N: **CLTFR12OM1**	OM1 multimode 62,5/125µm
P/N: **CLTFR12OM2**	OM2 multimode 50/125µm
P/N: **CLTFR12OM3**	OM3 multimode 50/125µm
P/N: **CLTFR12OM4**	OM4 multimode 50/125µm
P/N: **CLTFR12OS2**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	140mm
	opeartion	105mm
Max. tensile load	installation	2000N (200kg)
Outer cable diameter	7mm	
Weight	58kg/km	
Number of tubes x number of yarns	1 x 12	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OS2 singlemode

24 fibers

P/N: **CLTFR24OM1**	OM1 multimode 62,5/125µm
P/N: **CLTFR24OM2**	OM2 multimode 50/125µm
P/N: **CLTFR24OM3**	OM3 multimode 50/125µm
P/N: **CLTFR24OM4**	OM4 multimode 50/125µm
P/N: **CLTFR24OS2**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	156mm
	opeartion	117mm
Max. tensile load	installation	2000N (200kg)
Outer cable diameter	7,8mm	
Weight	68kg/km	
Number of tubes x number of yarns	1 x 24	

INDOOR OUTDOOR | LS0H | E_{ca}

Armoured central loose tube cable, Euroclass E_{ca}

- complies with the Construction Products Regulation (CPR) EU No. 305/2011 and reaction to fire requirements according to the harmonized standards EN 50575: 2014+A1: 2016
- halogen-free sheath
- corrugated steel tape armor
- central loose tube filled with water blocking gel
- tensile elements made of glass yarns
- primary protection of 250µm
- suitable for direct burial campus backbone applications, cable channels and cable bridges without the need of additional protection
- resistant to mechanical damage, moisture, water, UV radiation, corrosive liquids, also resistant to welding spark
- 100% protection against rodents

Temperature range	installation	-40°C to +70°C
	operation	-40°C to +70°C
Reaction to fire	E_{ca}	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode | OS2 singlemode

4 fibers

P/N: **CLTD04OM1-PANC-Eca**	OM1 multimode 62,5/125µm
P/N: **CLTD04OM2-PANC-Eca**	OM2 multimode 50/125µm
P/N: **CLTD04OM3-PANC-Eca**	OM3 multimode 50/125µm
P/N: **CLTD04OM4-PANC-Eca**	OM4 multimode 50/125µm
P/N: **CLTD04OM5-PANC-Eca**	OM5 multimode 50/125µm
P/N: **CLTD04OS2-PANC-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	110mm
	opeartion	110mm
Max. tensile load	installation	1000N (100kg)
	opeartion	500N (50kg)
Outer cable diameter	8,5mm	
Weight	75kg/km	
Number of tubes x number of yarns	1 x 4	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode | OS2 singlemode

8 fibers

P/N: **CLTD08OM1-PANC-Eca**	OM1 multimode 62,5/125µm
P/N: **CLTD08OM2-PANC-Eca**	OM2 multimode 50/125µm
P/N: **CLTD08OM3-PANC-Eca**	OM3 multimode 50/125µm
P/N: **CLTD08OM4-PANC-Eca**	OM4 multimode 50/125µm
P/N: **CLTD08OM5-PANC-Eca**	OM5 multimode 50/125µm
P/N: **CLTD08OS2-PANC-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	110mm
	opeartion	110mm
Max. tensile load	installation	1000N (100kg)
	opeartion	500N (50kg)
Outer cable diameter	8,5mm	
Weight	75kg/km	
Number of tubes x number of yarns	1 x 8	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode | OS2 singlemode

12 fibers

P/N: **CLTD12OM1-PANC-Eca**	OM1 multimode 62,5/125µm
P/N: **CLTD12OM2-PANC-Eca**	OM2 multimode 50/125µm
P/N: **CLTD12OM3-PANC-Eca**	OM3 multimode 50/125µm
P/N: **CLTD12OM4-PANC-Eca**	OM4 multimode 50/125µm
P/N: **CLTD12OM5-PANC-Eca**	OM5 multimode 50/125µm
P/N: **CLTD12OS2-PANC-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	110mm
	opeartion	110mm
Max. tensile load	installation	1000N (100kg)
	opeartion	500N (50kg)
Outer cable diameter	8,5mm	
Weight	75 kg/km	
Number of tubes x number of yarns	1 x 12	

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode | OS2 singlemode

24 fibers

P/N: **CLTD24OM1-PANC-Eca**	OM1 multimode 62,5/125µm
P/N: **CLTD24OM2-PANC-Eca**	OM2 multimode 50/125µm
P/N: **CLTD24OM3-PANC-Eca**	OM3 multimode 50/125µm
P/N: **CLTD24OM4-PANC-Eca**	OM4 multimode 50/125µm
P/N: **CLTD24OM5-PANC-Eca**	OM5 multimode 50/125µm
P/N: **CLTD24OS2-PANC-Eca**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Min. bending radius	installation	110mm
	opeartion	110mm
Max. tensile load	installation	1000N (100kg)
	opeartion	500N (50kg)
Outer cable diameter	8,5mm	
Weight	75kg/km	
Number of tubes x number of yarns	1 x 24	

The determination of Reaction to Fire Class Performance of this cable has been performed by Product Certification Body notified by European Commision.

2.
OPTICAL CABLING

Pigtails

- halogen-free secondary EASYSTRIP protection of 900µm

Pigtail ST

OM1 multimode | OM2 multimode | OM3 multimode | OS2 singlemode

P/N: **PIG06-ST-020**	OM1 multimode 62,5/125µm
P/N: **PIG05-ST-020**	OM2 multimode 50/125µm
P/N: **PIGOM3-ST-020**	OM3 multimode 50/125µm
P/N: **PIG09-ST-020**	OS2 singlemode 9/125µm (ITU-T G.652.D)

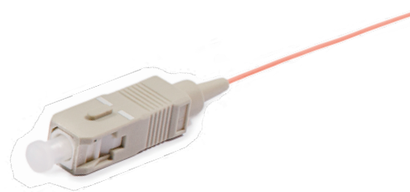
Connector ST	**multimode OM1, OM2, OM3**	**singlemode OS2**
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB (typical)
Length	2m	2m
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	2,5mm	2,5mm

Pigtail SC

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode | OS2 singlemode

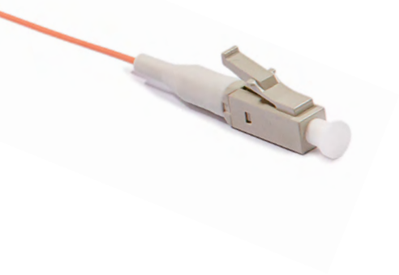
P/N: **PIG06-SC-020**	OM1 multimode 62,5/125µm
P/N: **PIG05-SC-020**	OM2 multimode 50/125µm
P/N: **PIGOM3-SC-020**	OM3 multimode 50/125µm
P/N: **PIGOM4-SC-020**	OM4 multimode 50/125µm
P/N: **PIGOM5-SC-020**	OM5 multimode 50/125µm
P/N: **PIG09-SC-020**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Connector SC	**multimode OM1, OM2, OM3, OM4, OM5**	**singlemode OS2**
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB (typical)
Length	2m	2m
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	2,5mm	2,5mm



OM1 multimode OM2 multimode OM3 multimode OM4 multimode OM5 multimode OS2 singlemode

Pigtail LC

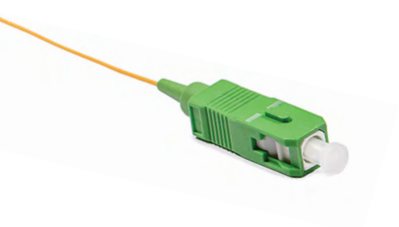


P/N: **PIG06-LC-020**	OM1 multimode 62,5/125µm
P/N: **PIG05-LC-020**	OM2 multimode 50/125µm
P/N: **PIGOM3-LC-020**	OM3 multimode 50/125µm
P/N: **PIGOM4-LC-020**	OM4 multimode 50/125µm
P/N: **PIGOM5-LC-020**	OM5 multimode 50/125µm
P/N: **PIG09-LC-020**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Connector LC	multimode OM1, OM2, OM3, OM4, OM5	singlemode OS2
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB
Length	2m	2m
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	1,25mm	1,25mm

OS2 singlemode

Pigtail SC/APC

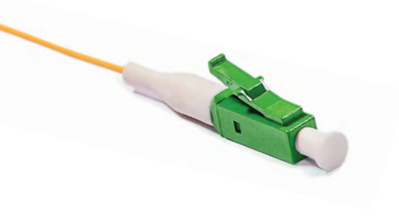


P/N: **PIG09-SCA-020** OS2 singlemode 9/125µm (ITU-T G.652.D)

Connector SC	
Polishing	APC
Return loss	> 65dB
Insertion loss	0,15dB (typical)
Length	2m
Ferrule material	ceramic (zirconia)
Ferrule diameter	2,5mm

OS2 singlemode

Pigtail LC/APC

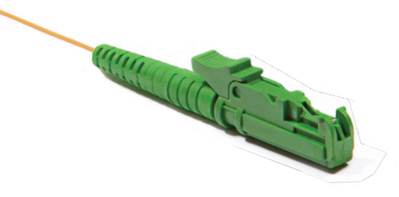


P/N: **PIG09-LCA-020** OS2 singlemode 9/125µm (ITU-T G.652.D)

Connector LC	
Polishing	APC
Return loss	> 65dB
Insertion loss	0,15dB (typical)
Length	2m
Ferrule material	ceramic (zirconia)
Ferrule diameter	1,25mm

OS2 singlemode

Pigtail LSH/APC



P/N: **PIG09-LSHAPC-020** OS2 singlemode 9/125µm (ITU-T G.652.D)

Connector LSH	
Polishing	APC
Return loss	> 65dB
Insertion loss	0,15dB (typical)
Length	2m
Ferrule material	ceramic (zirconia)
Ferrule diameter	2,5mm

2.

OPTICAL CABLING

Patch cords

- halogen-free sheath

OM1 multimode OM2 multimode OM3 multimode OS2 singlemode LS0H

Patch cord Duplex ST-SC

P/N: **P06D-STSC-xxx**	OM1 multimode 62,5/125µm
P/N: **P05D-STSC-xxx**	OM2 multimode 50/125µm
P/N: **POM3D-STSC-xxx**	OM3 multimode 50/125µm
P/N: **P09D-STSC-xxx**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Note: xxx - patch cable's length in dm
standard lengths - 1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m
non-standard patch cord length must be specified in the order

Connector ST	multimode OM1, OM2, OM3	singlemode OS2
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	2,5mm	2,5mm
Insertion / extraction cycles	min. 1000	min. 1000

Connector SC	multimode OM1, OM2, OM3	singlemode OS2
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	2,5mm	2,5mm
Insertion / extraction cycles	min. 1000	min. 1000

Patch cord Duplex ST-ST

P/N: **P06D-STST-xxx**	OM1 multimode 62,5/125µm
P/N: **P05D-STST-xxx**	OM2 multimode 50/125µm
P/N: **POM3D-STST-xxx**	OM3 multimode 50/125µm
P/N: **P09D-STST-xxx**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Note: xxx - patch cable's length in dm
standard lengths - 1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m
non-standard patch cord length must be specified in the order

Connector ST	multimode OM1, OM2, OM3	singlemode OS2
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	2,5mm	2,5mm
Insertion / extraction cycles	min. 1000	min. 1000

OM1 multimode | OM2 multimode | OM3 multimode
OS2 singlemode
LS0H

Patch cord Duplex LC-ST

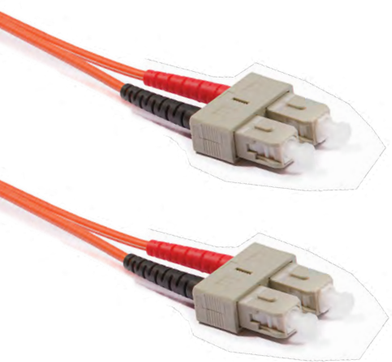
P/N: **P06D-LCST-xxx**	OM1 multimode 62,5/125µm
P/N: **P05D-LCST-xxx**	OM2 multimode 50/125µm
P/N: **POM3D-LCST-xxx**	OM3 multimode 50/125µm
P/N: **P09D-LCST-xxx**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Note: xxx - patch cable's length in dm
standard lengths - 1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m
non-standard patch cord length must be specified in the order

Connector LC	multimode OM1, OM2, OM3	singlemode OS2
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	1,25mm	1,25mm
Insertion / extraction cycles	min. 1000	min. 1000

Connector ST	multimode OM1, OM2, OM3	singlemode OS2
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	2,5mm	2,5mm
Insertion / extraction cycles	min. 1000	min. 1000

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode
OS2 singlemode
LS0H



Patch cord Duplex SC-SC

P/N: **P06D-SCSC-xxx**	OM1 multimode 62,5/125µm
P/N: **P05D-SCSC-xxx**	OM2 multimode 50/125µm
P/N: **POM3D-SCSC-xxx**	OM3 multimode 50/125µm
P/N: **POM4D-SCSC-xxx**	OM4 multimode 50/125µm
P/N: **POM5D-SCSC-xxx**	OM5 multimode 50/125µm
P/N: **P09D-SCSC-xxx**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Note: xxx - patch cable's length in dm
standard lengths - 1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m
non-standard patch cord length must be specified in the order

Connector SC	multimode OM1, OM2, OM3, OM4, OM5	singlemode OS2
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	2,5mm	2,5mm
Insertion / extraction cycles	min. 1000	min. 1000

OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode
OS2 singlemode
LS0H

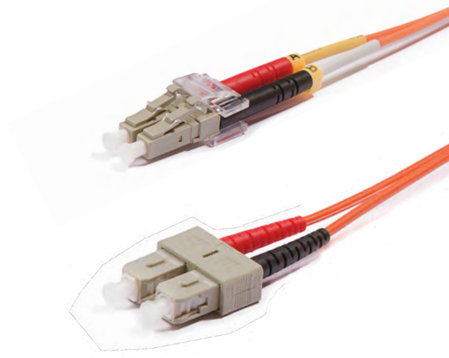
Patch cord Duplex LC-SC

P/N: **P06D-LCSC-xxx**	OM1 multimode 62,5/125µm
P/N: **P05D-LCSC-xxx**	OM2 multimode 50/125µm
P/N: **POM3D-LCSC-xxx**	OM3 multimode 50/125µm
P/N: **POM4D-LCSC-xxx**	OM4 multimode 50/125µm
P/N: **POM5D-LCSC-xxx**	OM5 multimode 50/125µm
P/N: **P09D-LCSC-xxx**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Note: xxx - patch cable's length in dm
standard lengths - 1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m
non-standard patch cord length must be specified in the order

Connector LC	multimode OM1, OM2, OM3, OM4, OM5	singlemode OS2
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	1,25mm	1,25mm
Insertion / extraction cycles	min. 1000	min. 1000

Connector SC	multimode OM1, OM2, OM3, OM4, OM5	singlemode OS2
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	2,5mm	2,5mm
Insertion / extraction cycles	min. 1000	min. 1000



OM1 multimode | OM2 multimode | OM3 multimode | OM4 multimode | OM5 multimode
OS2 singlemode
LS0H

Patch cord Duplex LC-LC

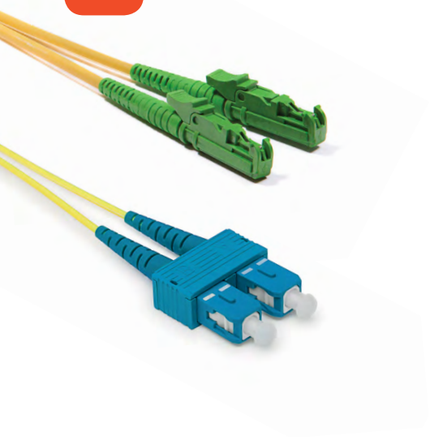
P/N: **P06D-LCLC-xxx**	OM1 multimode 62,5/125µm
P/N: **P05D-LCLC-xxx**	OM2 multimode 50/125µm
P/N: **POM3D-LCLC-xxx**	OM3 multimode 50/125µm
P/N: **POM4D-LCLC-xxx**	OM4 multimode 50/125µm
P/N: **POM5D-LCLC-xxx**	OM5 multimode 50/125µm
P/N: **P09D-LCLC-xxx**	OS2 singlemode 9/125µm (ITU-T G.652.D)

Note: xxx - patch cable's length in dm
standard lengths - 1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m
non-standard patch cord length must be specified in the order

Connector LC	multimode OM1, OM2, OM3, OM4, OM5	singlemode OS2
Polishing	PC	PC
Return loss	≥ 20dB	≥ 55dB
Insertion loss	≤ 0,3dB	0,15dB
Ferrule material	ceramic (zirconia)	ceramic (zirconia)
Ferrule diameter	1,25mm	1,25mm
Insertion / extraction cycles	min. 1000	min. 1000

OS2 singlemode

LS0H



Patch cord Duplex LSH/APC-SC

P/N: **P09D-LSHASC-xxx** OS2 singlemode 9/125μm (ITU-T G.652.D)

Note: xxx - patch cable's length in dm
standard lengths - 1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m
non-standard patch cord length must be specified in the order

Connector LSH	
Polishing	APC
Return loss	> 65dB
Insertion loss	0,15dB
Ferrule material	ceramic (zirconia)
Ferrule diameter	2,5mm
Insertion / extraction cycles	min. 1000

Connector SC	
Polishing	PC
Return loss	≥ 55dB
Insertion loss	0,15dB
Ferrule material	ceramic (zirconia)
Ferrule diameter	2,5mm
Insertion / extraction cycles	min. 1000

OS2 singlemode

LS0H

Patch cord Duplex LSH/APC-LC

P/N: **P09D-LSHALC-xxx** OS2 singlemode 9/125μm (ITU-T G.652.D)

Note: xxx - patch cable's length in dm
standard lengths - 1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m
non-standard patch cord length must be specified in the order

Connector LSH	
Polishing	APC
Return loss	> 65dB
Insertion loss	0,15dB
Ferrule material	ceramic (zirconia)
Ferrule diameter	2,5mm
Insertion / extraction cycles	min. 1000

Connector LC	
Polishing	PC
Return loss	≥ 55dB
Insertion loss	0,15dB
Ferrule material	ceramic (zirconia)
Ferrule diameter	1,25mm
Insertion / extraction cycles	min. 1000

OS2 singlemode

LS0H

Patch cord Duplex LSH/APC-LSH/APC

P/N: **P09D-LSHALSHA-xxx** OS2 singlemode 9/125μm (ITU-T G.652.D)

Note: xxx - patch cable's length in dm
standard lengths - 1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m
non-standard patch cord length must be specified in the order

Connector LSH	
Polishing	APC
Return loss	> 65dB
Insertion loss	0,15dB
Ferrule material	ceramic (zirconia)
Ferrule diameter	2,5mm
Insertion / extraction cycles	min. 1000

Patch cord Duplex SC/APC-LC

P/N: **P09D-SCALC-xxx** OS2 singlemode 9/125μm (ITU-T G.652.D)

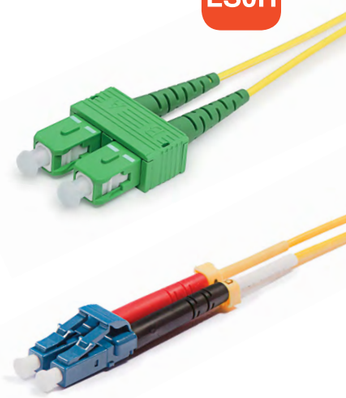
Note: xxx - patch cable's length in dm
standard lengths - 1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m
non-standard patch cord length must be specified in the order

Connector SC	
Polishing	APC
Return loss	> 65dB
Insertion loss	0,15dB
Ferrule material	ceramic (zirconia)
Ferrule diameter	2,5mm
Insertion / extraction cycles	min. 1000

Connector LC	
Polishing	PC
Return loss	≥ 55dB
Insertion loss	0,15dB
Ferrule material	ceramic (zirconia)
Ferrule diameter	1,25mm
Insertion / extraction cycles	min. 1000

OS2 singlemode

LS0H



Patch cord Duplex SC/APC-SC

P/N: **P09D-SCASC-xxx** OS2 singlemode 9/125μm (ITU-T G.652.D)

Note: xxx - patch cable's length in dm
standard lengths - 1m, 2m, 3m, 5m, 7m, 10m, 15m, 20m
non-standard patch cord length must be specified in the order

Connector SC	
Polishing	APC
Return loss	> 65dB
Insertion loss	0,15dB
Ferrule material	ceramic (zirconia)
Ferrule diameter	2,5mm
Insertion / extraction cycles	min. 1000

Connector SC	
Polishing	PC
Return loss	≥ 55dB
Insertion loss	0,15dB
Ferrule material	ceramic (zirconia)
Ferrule diameter	2,5mm
Insertion / extraction cycles	min. 1000

Fiber optic visual fault locator

P/N: **KE-VFL**

- tool designed for locating optical cable errors
- laser performace - output power 10mW (max. 18mW)
- wavelenght 650nm
- suitable for connectors with diameter ferrule 2,5mm and 1,25mm

2.
OPTICAL CABLING

Adapters

ST-ST
P/N: **KE-ST-MM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM1 multimode
OM2 multimode

SC-SC
P/N: **KE-SC-MM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM1 multimode
OM2 multimode

SC-SC Duplex
P/N: **KE-SCD-MM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM1 multimode
OM2 multimode

LC-LC Duplex
P/N: **KE-LC-MM**

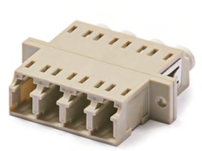
Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM1 multimode
OM2 multimode

LC-LC Quad
P/N: **KE-LCD-MM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM1 multimode
OM2 multimode



SC-SC
P/N: **KE-SC-MM-AQ**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM3 multimode

SC-SC Duplex
P/N: **KE-SCD-MM-AQ**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM3 multimode

LC-LC Duplex
P/N: **KE-LC-MM-AQ**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM3 multimode

LC-LC Quad
P/N: **KE-LCD-MM-AQ**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM3 multimode

SC-SC
P/N: **KE-SC-MM-EV**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM4 multimode

SC-SC Duplex
P/N: **KE-SCD-MM-EV**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM4 multimode

LC-LC Duplex
P/N: **KE-LC-MM-EV**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM4 multimode

LC-LC Quad
P/N: **KE-LCD-MM-EV**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM4 multimode

SC-SC
P/N: **KE-SC-MM-LG**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM5 multimode

SC-SC Duplex
P/N: **KE-SCD-MM-LG**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM5 multimode

LC-LC Duplex
P/N: **KE-LC-MM-LG**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM5 multimode

LC-LC Quad
P/N: **KE-LCD-MM-LG**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OM5 multimode

ST-ST
P/N: **KE-ST-SM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OS2 singlemode

SC-SC
P/N: **KE-SC-SM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OS2 singlemode

SC/APC-SC/APC
P/N: **KE-SCA-SM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OS2 singlemode

FC-FC
P/N: **KE-FC-SM**

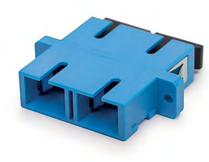
Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OS2 singlemode

SC-SC Duplex
P/N: **KE-SCD-SM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

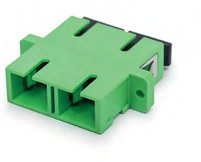
OS2 singlemode



SC/APC-SC/APC Duplex
P/N: **KE-SCAD-SM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OS2 singlemode



LC-LC Duplex
P/N: **KE-LC-SM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OS2 singlemode

LC/APC-LC/APC Duplex
P/N: **KE-LCA-SM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OS2 singlemode

LC-LC Quad
P/N: **KE-LCD-SM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OS2 singlemode

LSH/APC-LSH/APC
P/N: **KE-LSHA-SM**

Alignment sleeve	ceramic (zirconia)
Insertion loss	< 0,2dB

OS2 singlemode

Patch panels, distribution boxes and additional material

Sliding patch panel for 24 x ST-ST or FC-FC adapters, empty

P/N: **RAB-FO-X05-SL**

- suitable for ST-ST or FC-FC adapters
- designed for 19” cabinets
- 4 cable inputs
- set of M6 screws and captive nuts (4 pcs)
- blanking insert (24 pcs)
- cable clamp PG13,5 (4 pcs)

Height	1U (44,5mm)
Width	19” (482,6mm)
Depth	240mm
Material	steel
Colour	black RAL9005
Surface	structured

Sliding patch panel for 24 x SC-SC, LC-LC Duplex or LSH-LSH adapters, empty

P/N: **RAB-FO-X37-SL**

- suitable for SC-SC, LC-LC Duplex or LSH-LSH adapters
- designed for 19” cabinets
- 4 cable inputs
- set of M6 screws and captive nuts (4 pcs)
- blanking insert (24 pcs)
- cable clamp PG13,5 (4 pcs)

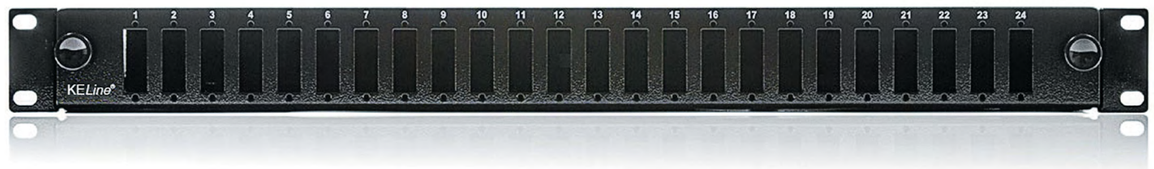
Height	1U (44,5mm)
Width	19” (482,6mm)
Depth	240mm
Material	steel
Colour	black RAL9005
Surface	structured

Sliding patch panel for 24 x SC-SC Duplex or LC-LC Quad adapters, empty

P/N: **RAB-FO-X38-SL**

- suitable for SC-SC Duplex or LC-LC Quad adapters
- designed for 19” cabinets
- 4 cable inputs
- set of M6 screws and captive nuts (4 pcs)
- blanking insert (24 pcs)
- cable clamp PG13,5 (4 pcs)

Height	1U (44,5mm)
Width	19” (482,6mm)
Depth	240mm
Material	steel
Colour	black RAL9005
Surface	structured



Wall-mounted distribution box IP54, empty

P/N: **RAC-FO-A07-A1**

- housing with 2 separately lockable doors
- divided into two sections with separate locks:
  - optical welds section ready for splice cassette
  - cable management section
- 4 cable inputs
- holders for 24 x SC-SC, LC-LC Duplex or LSH-LSH adapters (1 pc)
  holders for 24 x ST-ST or FC-FC adapters (1 pc)
  holders for 16 x SC-SC Duplex or LC-LC Quad adapters (1 pc)
- cable clamp PG11 (2 pcs)

Height		245mm
Width	overall	345mm
	optical welds section	190mm
	cable management section	155mm
Depth		75mm
Material		steel
Colour		gray RAL7035
Surface		structured, glossy

Distribution box
for ST-ST or FC-FC adapters, empty

P/N: **RA-FO-04** for 4 adapters
P/N: **RA-FO-08** for 8 adapters

- suitable for wall mounting
- cable clamp PG11 (2 pcs)

Height	155mm
Width	155mm
Depth	40mm
Material	steel
Colour	black RAL9005
Surface	structured, matt

Distribution box
for SC-SC, LC-LC Duplex or LSH-LSH adapters, empty

P/N: **RA-FO-04SC** for 4 adapters
P/N: **RA-FO-08SC** for 8 adapters

- suitable for wall mounting
- cable clamp PG11 (2 pcs)

Height	155mm
Width	155mm
Depth	40mm
Material	steel
Colour	black RAL9005
Surface	structured, matt

Optical outlet FTTH, empty

P/N: **KE-FTTHB-04**

- suitable for 4 x SC-SC or 4 x LC-LC Duplex adapters
- designed for wall mounting
- mounted splice cassette for 4/8 splice protection

Height	80mm
Width	100mm
Depth	30mm
Material	ABS plast
Colour	white RAL9003
Surface	glossy

Fiber optic enclosure

P/N: **PC-ES-2024**

- suitable for campus networks
- capacity up to 240 splices
- can be mounted on wall or pole
- quick tool-free reopening without the need of special tools
- sealing secured by silicone plugging ring
- cable inputs sealed by shrinking tubes
- 6 separate cable inputs and one oval cable input (uninterrupted cable)
- 1 cassette for 24 splices included (possibility of adding another 9 pieces)

Dimensions	height 460mm diameter 225mm
Operating temperature	-40°C to 65°C
Operating pressure	70 to 106kPa
Capacity	max. 240 fibers
Number of cassettes	max. 10
Cable diameter	6mm to 17,5mm
Isolation resistance	> 2 x 104MΩ
Voltage-resistance strength	15kV DC/1min

Splice cassette for 24 splices

P/N: **PC-7212**

- suitable for fibre optic enclosure (P/N: PC-ES-2024)

Splice cassette, empty

for splice holder RAB-FO-X12
or RAB-FO-X14

P/N: **RAB-FO-X04** with 2xRAB-FO-X12
P/N: **RAB-FO-X10** empty

Splice holder for splice cassette RAB-FO-X10

P/N: **RAB-FO-X14** for 12 splice protections FCSP-1

Splice holder for splice cassette RAB-FO-X10

P/N: **RAB-FO-X12** for 12 splice protections F11002 or F11002-40

Splice holder for heat-shrink splice protections

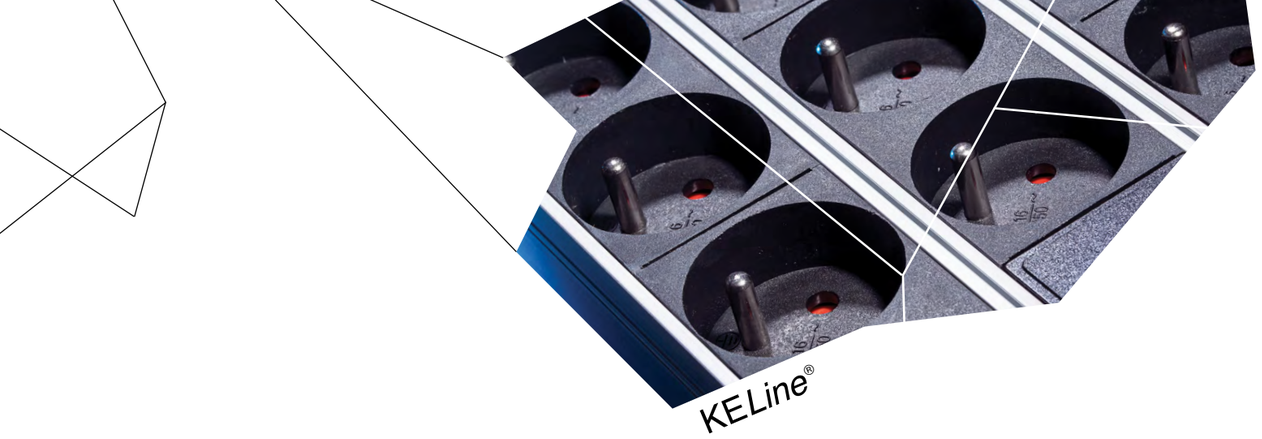
P/N: **OPT-145** for 12/24 splices
P/N: **OPT-189** for 2/4 splices

Crimp splice protection

P/N: **FCSP-1**

Heat-shrink splice protection

P/N: **F11002** length 60 mm
P/N: **F11002-40** length 40 mm



3.
CABINETS

119. Knowledge base
120. 19” wall-mounted cabinets
126. 19” free-standing cabinets
134. 19” server cabinets
136. 19” open frames
137. Accessories for 19” cabinets
146. Power distribution units - PDUs
150. 10” wall-mounted cabinets and accessories

Knowledge base

Cabinets are manufactured on fully automatic manufacturing lines with up-to-date technology for sheet metal processing.

Mass produced standardized types are supplied fully assembled and are defined by a single ordering code. This concept simplifies the complicated process of order specification, excludes errors and minimizes logistic costs.

There is a possibility of delivering standard types of cabinets with different variants of front and rear door according to customer’s requirements.

All products are certified by international laboratories TÜV SÜD according to ČSN EN 62208:2004, ČSN 73 1401:1998 + Z1 a Z2, ČSN 73 0035:1998, EN 60335-1:02, EN 55014-1:00 + A1:01 + A2:02, EN 61000-3-2:06, EN 61000-3-3:95 + A1:01, EN 55014-2:97 + A1:01.

single door

hardened smoked glass door

double wing door (server and stand-alone cabinets)

solid steel door

perforated door (air permeability 80%)

3.
CABINETS

19” wall-mounted cabinets

One-sectioned, 19“ wall-mounted cabinets RBA

- welded construction with IP30 protection
- hardened smoked glass door (standard)
- solid steel or perforated door (air permeability 80%) available upon request
- front vertical rails freely adjustable in any depth of the cabinet
- rear vertical fixed rails
- frame of the cabinet and all removable parts are connected with earthing cables
- cable openings covered with breakout-type blanking panels located at the top, bottom and rear part of the cabinet
- protective blanking panel with a brush to seal the cabinet opening against dust penetration (1 pc)
- set of M6 screws and captive nuts (8 pcs)

Front door RBA-xx-**x**xx–xAY–A1	A - hardened smoked glass door (standard) C - solid steel door L - perforated door
Colour RBA-xx-xxx–**x**AY–A1	C - gray RAL7035 (standard) B - black RAL9005
Surface	structured, matt

solid steel door (C)

perforated door (L)

width 600mm, depth 395mm		height (mm)	weight (kg)	capacity (kg)
4U	P/N: **RBA-04-AS4-CAY-A1**	280	11,7	30
6U	P/N: **RBA-06-AS4-CAY-A1**	370	13,6	
9U	P/N: **RBA-09-AS4-CAY-A1**	500	16,1	
12U	P/N: **RBA-12-AS4-CAY-A1**	635	19,1	
15U	P/N: **RBA-15-AS4-CAY-A1**	770	21,8	
18U	P/N: **RBA-18-AS4-CAY-A1**	900	24,7	

width 600mm, depth 495mm		height (mm)	weight (kg)	capacity (kg)
4U	P/N: **RBA-04-AS5-CAY-A1**	280	13,5	30
6U	P/N: **RBA-06-AS5-CAY-A1**	370	15,6	
9U	P/N: **RBA-09-AS5-CAY-A1**	500	18,4	
12U	P/N: **RBA-12-AS5-CAY-A1**	635	21,7	
15U	P/N: **RBA-15-AS5-CAY-A1**	770	24,6	
18U	P/N: **RBA-18-AS5-CAY-A1**	900	27,7	

width 600mm, depth 595mm		height (mm)	weight (kg)	capacity (kg)
4U	P/N: **RBA-04-AS6-CAY-A1**	280	15,5	30
6U	P/N: **RBA-06-AS6-CAY-A1**	370	17,7	
9U	P/N: **RBA-09-AS6-CAY-A1**	500	20,8	
12U	P/N: **RBA-12-AS6-CAY-A1**	635	24,0	
15U	P/N: **RBA-15-AS6-CAY-A1**	770	27,2	
18U	P/N: **RBA-18-AS6-CAY-A1**	900	30,3	

One-sectioned, 19“ wall-mounted cabinets RUA

- welded construction with IP30 protectionn
- removable and lockable side panels enable an easy access to the installed devices
- hardened smoked glass door (standard)
- solid steel or perforated door (air permeability 80%) available upon request
- front vertical rails freely adjustable in any depth of the cabinet
- rear vertical fixed rails
- frame of the cabinet and all removable parts are connected with earthing cables
- cable openings covered with breakout-type blanking panels located at the top, bottom and rear part of the cabinet
- 6 breakout-type blanking panels (3 in the top, 3 in the bottom) for the installation of fan units RAX-CH-X07-X9 and RAC-CH-X26-X1
- protective blanking panel with a brush to seal the cabinet opening against dust penetration (1 pc)
- set of M6 screws and captive nuts (8 pcs)

Front door RUA-xx-**x**xx–xAY–A1	A - hardened smoked glass door (standard) C - solid steel door L - perforated door
Colour RUA-xx-xxx–**x**AY–A1	C - gray RAL7035 (standard) B - black RAL9005
Surface	structured, matt

solid steel door (C)

perforated door (L)

width 600mm, depth 395mm		height (mm)	weight (kg)	capacity (kg)
9U	P/N: **RUA-09-AS4-CAY-A1**	500	17,3	30
12U	P/N: **RUA-12-AS4-CAY-A1**	635	20,3	
15U	P/N: **RUA-15-AS4-CAY-A1**	770	22,0	
18U	P/N: **RUA-18-AS4-CAY-A1**	900	26,6	

width 600mm, depth 495mm		height (mm)	weight (kg)	capacity (kg)
6U	P/N: **RUA-06-AS5-CAY-A1**	370	16,1	30
9U	P/N: **RUA-09-AS5-CAY-A1**	500	19,5	
12U	P/N: **RUA-12-AS5-CAY-A1**	635	21,7	
15U	P/N: **RUA-15-AS5-CAY-A1**	770	26,0	
18U	P/N: **RUA-18-AS5-CAY-A1**	900	29,1	

width 600mm, depth 595mm		height (mm)	weight (kg)	capacity (kg)
6U	P/N: **RUA-06-AS6-CAY-A1**	370	18,9	30
9U	P/N: **RUA-09-AS6-CAY-A1**	500	21,3	
12U	P/N: **RUA-12-AS6-CAY-A1**	635	26,0	
15U	P/N: **RUA-15-AS6-CAY-A1**	770	28,5	

Two-sectioned, 19“ wall-mounted cabinets RBA

- welded construction with IP30 protectionn
- rear section opening enables an easy access to the installed devices from the backside
- hardened smoked glass door (standard)
- solid steel or perforated door (air permeability 80%) available upon request
- front vertical rails are continuously adjustable
- rear vertical fixed rails
- frame of the cabinet and all removable parts are connected with earthing cables
- cable openings covered with breakout-type blanking panels located at the top, bottom and rear part of the cabinet
- protective blanking panel with a brush to seal the cabinet opening against dust penetration (1 pc)
- set of M6 screws and captive nuts (8 pcs)

Front door RBA-xx-**x**xx–xAY–A1	A - hardened smoked glass door (standard) C - solid steel door L - perforated door
Colour RBA-xx-xxx–**x**AY–A1	C - gray RAL7035 (standard) B - black RAL9005
Surface	structured, matt

solid steel door (C)

perforated door (L)

width 600mm, depth 515mm

		height (mm)	weight (kg)	capacity (kg)
4U	P/N: **RBA-04-AD5-CAY-A1**	280	15,1	20
6U	P/N: **RBA-06-AD5-CAY-A1**	370	16,9	
9U	P/N: **RBA-09-AD5-CAY-A1**	500	20,1	25
12U	P/N: **RBA-12-AD5-CAY-A1**	635	23,5	
15U	P/N: **RBA-15-AD5-CAY-A1**	770	27,0	30
18U	P/N: **RBA-18-AD5-CAY-A1**	900	30,1	

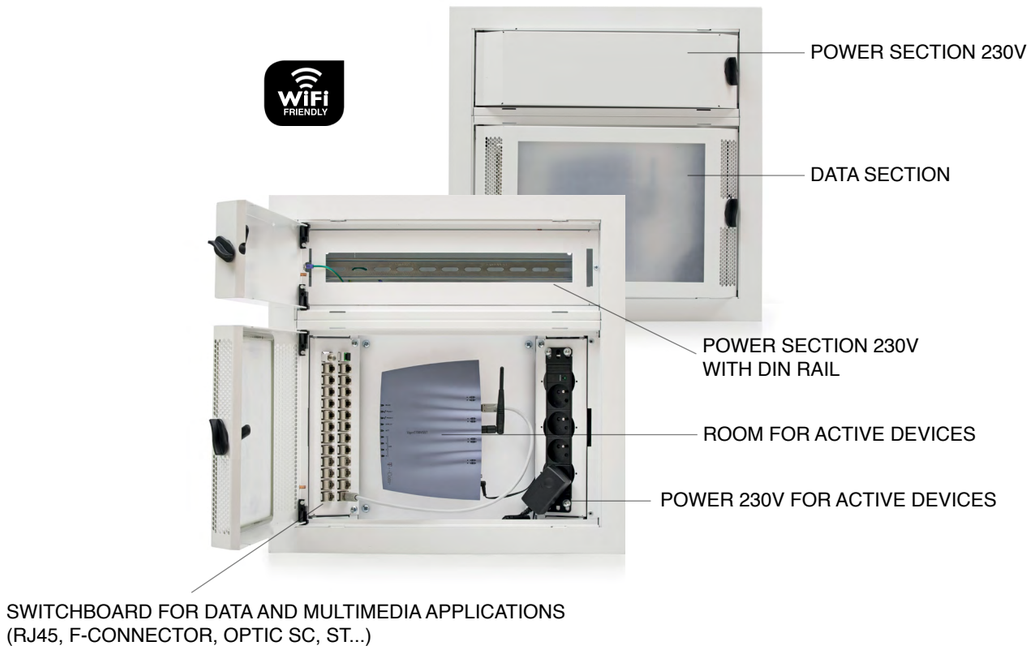
width 600mm, depth 615mm

		height (mm)	weight (kg)	capacity (kg)
4U	P/N: **RBA-04-AD6-CAY-A1**	280	17,0	20
6U	P/N: **RBA-06-AD6-CAY-A1**	370	18,9	
9U	P/N: **RBA-09-AD6-CAY-A1**	500	22,4	25
12U	P/N: **RBA-12-AD6-CAY-A1**	635	25,9	
15U	P/N: **RBA-15-AD6-CAY-A1**	770	29,3	30
18U	P/N: **RBA-18-AD6-CAY-A1**	900	33,2	

Residential distribution cabinet

- enables the input and distribution of power, data and multimedia, for example internet, telephone, cable and satellite TV, LAN, audio and video distribution
- allows the placement of active devices, including Wi-Fi
- contains a power and data section in three different sizes
- can be installed as a wall-mounted or flush-mounted cabinet
- data section contains a built-in switchboard where a combination of RJ45 keystone, F-connector, fiber optic SC, ST, connector can be installed
- cabinet doors for data section are made of HDPE plastic and enables a smooth dissemination of WI-FI signal
- all other structural elements are made of metal
- doors are hinged and are easily removable
- cable entries covered with blanking panels are on the back and the all sides of the cabinet
- all detachable parts are connected with earthing cables

Material	metal thickness of 1mm
Protection	IP20
Colour	white RAL9003
Surface	plain, glossy
Data section loading capacity	20kg
Power section loading capacity	20kg



Note: Equipment displayed in cabinet are illustrative examples only.
Residential distribution cabinets are delivered empty.

Data section

Note: Cabinet configurations on the pictures are shown as illustrative examplets only. Residential distribution cabinets are delivered empty.

Front door RNA-0x-A51-YXX-X**x**	1 - convex door (more space for equipment) 2 - flat door (fits the wall)

	Dimmensions h x w x d (mm)	**Max.amount of data ports**	**Max. amount of power sockets for active devices**	**Weight (kg)**	**Capacity (kg)**
P/N: **RNA-01-A51-YXX-X1**	166 x 500 x 110	2 x 04	1 x 230V	4,4	20
P/N: **RNA-02-A51-YXX-X1**	333 x 500 x 110	2 x 13	3 x 230V	6,4	
P/N: **RNA-03-A51-YXX-X1**	500 x 500 x 110	2 x 22	4 x 230V	6,7	

Note: when installing as flush-mounted: 1. hole that is 15-20mm larger than the size of the cabinet must be prepared in each direction.
2. it is appropriate to use peripheral frame cover

Frame cover for flush-mounting

	Inner dimmensions h x w (mm)	**Width of frame bar (mm)**
P/N: **RAY-NF-X01-X1**	166 x 500	40,5
P/N: **RAY-NF-X02-X1**	333 x 500	40,5
P/N: **RAY-NF-X03-X1**	500 x 500	40,5
P/N: **RAY-NF-X04-X1**	666 x 500	40,5
P/N: **RAY-NF-X05-X1**	833 x 500	40,5
P/N: **RAY-NF-X06-X1**	1000 x 500	40,5

Power section

Front door SNA-0x-C51-YXX-X**x**	1 - convex door (more space for equipment) 2 - flat door (fits the wall)

	Dimmensions h x w x d (mm)	**Max. amount of slots on DIN rail**	**Weight (kg)**	**Capacity (kg)**
P/N: **SNA-01-C51-YXX-X1**	166 x 500 x 110	1 x 22	4,4	20
P/N: **SNA-02-C51-YXX-X1**	333 x 500 x 110	2 x 22	6,4	
P/N: **SNA-03-C51-YXX-X1**	500 x 500 x 110	3 x 22	6,7	

Note: when installing as flush-mounted: 1. hole that is 15-20mm larger than the size of the cabinet must be prepared in each direction.
2. it is appropriate to use peripheral frame cover

Set for connecting sections

P/N: **RAX-NJ-X01-X1**

3.
CABINETS

19” free-standing cabinets

19“ free-standing compact cabinet RMA

- welded construction with IP20 protection
- hardened smoked glass door (standard)
- solid steel or perforated door (air permeability 80%) available as single or double-wing upon request
- removable and lockable side panels and rear cover enable easy access to installed devices
- possibility of replacing rear cover with door (the same variants as the front door)
- front vertical rails are continuously adjustable
- frame of the cabinet and all removable parts are connected with earthing cables
- cable openings covered with breakout-type blanking panels located at the top, bottom and rear part of the cabinet
- breakout-type blanking panels for fan units are located in the top and bottom of the cabinet
- nivelation feet (standard)
- castors RAX-MS-X81-X1 and base with filter RAB-PO-XXX-XN, RAC-PO-XXX-XN available upon request
- sliding vertical rails installation in a span of 19”, 21” or 23” (only in case of cabinets with width of 800mm)
- protective blanking panel with a brush to seal the cabinet opening against dust penetration (1 pc)
- set of M6 screws and captive nuts (16 pcs)

Front door RMA-xx-**x**xx–xAY–Ax	A - hardened smoked glass door (standard) C - solid steel door L - perforated door E - double wing , hardened smoked glass door F - double wing, solid steel door G - double wing, perforated door
Colour RMA-xx-xxx–**x**AY–Ax	C - gray RAL7035 (standard) B - black RAL9005
Surface	structured, matt

width 600mm, depth 600mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A66-CAY-A1	770	33,0	400
18U	P/N: RMA-18-A66-CAY-A1	900	38,0	
22U	P/N: RMA-22-A66-CAY-A1	1080	42,0	
27U	P/N: RMA-27-A66-CAY-A1	1300	49,0	
32U	P/N: RMA-32-A66-CAY-A1	1525	55,0	
37U	P/N: RMA-37-A66-CAY-A1	1750	63,0	
42U	P/N: RMA-42-A66-CAY-A1	1970	70,0	
45U	P/N: RMA-45-A66-CAY-A1	2105	72,0	
47U	P/N: RMA-47-A66-CAY-A1	2194	76,0	

width 600mm, depth 800mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A68-CAY-A1	770	39,0	400
18U	P/N: RMA-18-A68-CAY-A1	900	44,0	
22U	P/N: RMA-22-A68-CAY-A1	1080	49,0	
27U	P/N: RMA-27-A68-CAY-A1	1300	57,0	
32U	P/N: RMA-32-A68-CAY-A1	1525	64,0	
37U	P/N: RMA-37-A68-CAY-A1	1750	72,0	
42U	P/N: RMA-42-A68-CAY-A1	1970	79,0	
45U	P/N: RMA-45-A68-CAY-A1	2105	85,0	
47U	P/N: RMA-47-A68-CAY-A1	2194	88,0	

width 600mm, depth 900mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A69-CAY-A1	770	42,0	400
18U	P/N: RMA-18-A69-CAY-A1	900	48,0	
22U	P/N: RMA-22-A69-CAY-A1	1080	54,0	
27U	P/N: RMA-27-A69-CAY-A1	1300	62,0	
32U	P/N: RMA-32-A69-CAY-A1	1525	71,0	
37U	P/N: RMA-37-A69-CAY-A1	1750	79,0	
42U	P/N: RMA-42-A69-CAY-A1	1970	86,0	
45U	P/N: RMA-45-A69-CAY-A1	2105	91,0	
47U	P/N: RMA-47-A69-CAY-A1	2194	94,0	

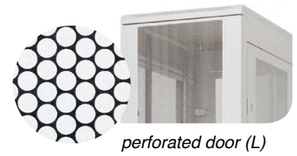
width 600mm, depth 1000mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A61-CAY-A1	770	46,0	400
18U	P/N: RMA-18-A61-CAY-A1	900	50,0	
22U	P/N: RMA-22-A61-CAY-A1	1080	58,0	
27U	P/N: RMA-27-A61-CAY-A1	1300	65,0	
32U	P/N: RMA-32-A61-CAY-A1	1525	75,0	
37U	P/N: RMA-37-A61-CAY-A1	1750	83,0	
42U	P/N: RMA-42-A61-CAY-A1	1970	91,0	
45U	P/N: RMA-45-A61-CAY-A1	2105	96,0	
47U	P/N: RMA-47-A61-CAY-A1	2194	99,0	

width 600mm, depth 1100mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A60-CAY-A1	770	50,0	400
18U	P/N: RMA-18-A60-CAY-A1	900	54,0	
22U	P/N: RMA-22-A60-CAY-A1	1080	61,0	
27U	P/N: RMA-27-A60-CAY-A1	1300	67,0	
32U	P/N: RMA-32-A60-CAY-A1	1525	76,0	
37U	P/N: RMA-37-A60-CAY-A1	1750	85,0	
42U	P/N: RMA-42-A60-CAY-A1	1970	94,0	
45U	P/N: RMA-45-A60-CAY-A1	2105	98,0	
47U	P/N: RMA-47-A60-CAY-A1	2194	101,0	

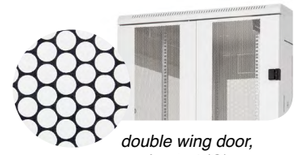
solid steel door (C)



perforated door (L)

double wing door, hardened glass (E)

double wing door, solid steel (F)



double wing door, perforated (G)

width 600mm, depth 1200mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A62-CAY-A1	770	54,0	400
18U	P/N: RMA-18-A62-CAY-A1	900	59,0	
22U	P/N: RMA-22-A62-CAY-A1	1080	65,0	
27U	P/N: RMA-27-A62-CAY-A1	1300	69,0	
32U	P/N: RMA-32-A62-CAY-A1	1525	78,0	
37U	P/N: RMA-37-A62-CAY-A1	1750	89,0	
42U	P/N: RMA-42-A62-CAY-A1	1970	98,0	
45U	P/N: RMA-45-A62-CAY-A1	2105	102,0	
47U	P/N: RMA-47-A62-CAY-A1	2194	105,0	

width 800mm, depth 600mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A86-CAY-A1	770	35,0	400
18U	P/N: RMA-18-A86-CAY-A1	900	42,0	
22U	P/N: RMA-22-A86-CAY-A1	1080	47,0	
27U	P/N: RMA-27-A86-CAY-A1	1300	54,0	
32U	P/N: RMA-32-A86-CAY-A1	1525	62,0	
37U	P/N: RMA-37-A86-CAY-A1	1750	78,0	
42U	P/N: RMA-42-A86-CAY-A1	1970	85,0	
45U	P/N: RMA-45-A86-CAY-A1	2105	89,0	
47U	P/N: RMA-47-A86-CAY-A1	2194	91,0	

width 800mm, depth 800mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A88-CAY-A1	770	49,0	400
18U	P/N: RMA-18-A88-CAY-A1	900	55,0	
22U	P/N: RMA-22-A88-CAY-A1	1080	61,0	
27U	P/N: RMA-27-A88-CAY-A1	1300	72,0	
32U	P/N: RMA-32-A88-CAY-A1	1525	80,0	
37U	P/N: RMA-37-A88-CAY-A1	1750	88,0	
42U	P/N: RMA-42-A88-CAY-A1	1970	96,0	
45U	P/N: RMA-45-A88-CAY-A1	2105	101,0	
47U	P/N: RMA-47-A88-CAY-A1	2194	106,0	

width 800mm, depth 900mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A89-CAY-A1	770	55,0	400
18U	P/N: RMA-18-A89-CAY-A1	900	60,0	
22U	P/N: RMA-22-A89-CAY-A1	1080	67,0	
27U	P/N: RMA-27-A89-CAY-A1	1300	79,0	
32U	P/N: RMA-32-A89-CAY-A1	1525	88,0	
37U	P/N: RMA-37-A89-CAY-A1	1750	95,0	
42U	P/N: RMA-42-A89-CAY-A1	1970	103,0	
45U	P/N: RMA-45-A89-CAY-A1	2105	111,0	
47U	P/N: RMA-47-A89-CAY-A1	2194	118,0	

width 800mm, depth 1000mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A81-CAY-A1	770	59,0	400
18U	P/N: RMA-18-A81-CAY-A1	900	64,0	
22U	P/N: RMA-22-A81-CAY-A1	1080	73,0	
27U	P/N: RMA-27-A81-CAY-A1	1300	81,0	
32U	P/N: RMA-32-A81-CAY-A1	1525	91,0	
37U	P/N: RMA-37-A81-CAY-A1	1750	101,0	
42U	P/N: RMA-42-A81-CAY-A1	1970	110,0	
45U	P/N: RMA-45-A81-CAY-A1	2105	117,0	
47U	P/N: RMA-47-A81-CAY-A1	2194	120,0	

width 800mm, depth 1100mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A80-CAY-A1	770	64,0	400
18U	P/N: RMA-18-A80-CAY-A1	900	69,0	
22U	P/N: RMA-22-A80-CAY-A1	1080	76,0	
27U	P/N: RMA-27-A80-CAY-A1	1300	84,0	
32U	P/N: RMA-32-A80-CAY-A1	1525	94,0	
37U	P/N: RMA-37-A80-CAY-A1	1750	104,0	
42U	P/N: RMA-42-A80-CAY-A1	1970	114,0	
45U	P/N: RMA-45-A80-CAY-A1	2105	120,0	
47U	P/N: RMA-47-A80-CAY-A1	2194	124,0	

width 800mm, depth 1200mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RMA-15-A82-CAY-A1	770	68,0	400
18U	P/N: RMA-18-A82-CAY-A1	900	73,0	
22U	P/N: RMA-22-A82-CAY-A1	1080	80,0	
27U	P/N: RMA-27-A82-CAY-A1	1300	88,0	
32U	P/N: RMA-32-A82-CAY-A1	1525	97,0	
37U	P/N: RMA-37-A82-CAY-A1	1750	107,0	
42U	P/N: RMA-42-A82-CAY-A1	1970	118,0	
45U	P/N: RMA-45-A82-CAY-A1	2105	124,0	
47U	P/N: RMA-47-A82-CAY-A1	2194	127,0	

19“ free-standing demountable cabinet RZA

- screwed construction with IP20 protection
- partial or complete dismantling enables installation to difficult to reach places
- hardened smoked glass door (standard)
- solid steel or perforated door (air permeability 80%) available as single or double-wing request
- removable and lockable side panels and rear cover enable easy access to installed devices
- possibility of replacing rear cover with door (the same variants as the front door)
- front vertical rails are continuously adjustable
- frame of the cabinet and all removable parts are connected with earthing cables
- cable openings covered with breakout-type blanking panels located at the top, bottom and rear part of the cabinet
- breakout-type blanking panels for fan units are located in the top and bottom of the cabinet
- nivelation feet (standard)
- castors RAX-MS-X81-X1 and base with filter RAB-PO-XXX-XN, RAC-PO-XXX-XN available upon request
- sliding vertical rails installation in a span of 19”, 21” or 23”
- protective blanking panel with a brush to seal the cabinet opening against dust penetration (1 pc)
- set of M6 screws and captive nuts (16 pcs)

Front door RZA-xx-**x**xx–xAY–Ax	A - hardened smoked glass door (standard) C - solid steel door L - perforated door E - double wing , hardened smoked glass door F - double wing, solid steel door G - double wing, perforated door
Colour RZA-xx-xxx–**x**AY–Ax	C - gray RAL7035 (standard) B - black RAL9005
Surface	structured, matt

width 600mm, depth 600mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: **RZA-15-A66-CAY-A1**	770	35,7	300
18U	P/N: **RZA-18-A66-CAY-A1**	900	39,5	
22U	P/N: **RZA-22-A66-CAY-A1**	1080	44,6	
27U	P/N: **RZA-27-A66-CAY-A1**	1300	52,8	400
32U	P/N: **RZA-32-A66-CAY-A1**	1525	59,6	
37U	P/N: **RZA-37-A66-CAY-A1**	1750	66,5	
42U	P/N: **RZA-42-A66-CAY-A1**	1970	73,2	
45U	P/N: **RZA-45-A66-CAY-A1**	2105	77,3	
47U	P/N: **RZA-47-A66-CAY-A1**	2194	79,9	

width 600mm, depth 800mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: **RZA-15-A68-CAY-A1**	770	41,5	300
18U	P/N: **RZA-18-A68-CAY-A1**	900	45,7	
22U	P/N: **RZA-22-A68-CAY-A1**	1080	51,5	
27U	P/N: **RZA-27-A68-CAY-A1**	1300	60,4	400
32U	P/N: **RZA-32-A68-CAY-A1**	1525	67,9	
37U	P/N: **RZA-37-A68-CAY-A1**	1750	75,6	
42U	P/N: **RZA-42-A68-CAY-A1**	1970	83,0	
45U	P/N: **RZA-45-A68-CAY-A1**	2105	87,5	
47U	P/N: **RZA-47-A68-CAY-A1**	2194	90,5	

width 600mm, depth 900mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: **RZA-15-A69-CAY-A1**	770	45,4	300
18U	P/N: **RZA-18-A69-CAY-A1**	900	50,1	
22U	P/N: **RZA-22-A69-CAY-A1**	1080	56,4	
27U	P/N: **RZA-27-A69-CAY-A1**	1300	67,0	400
32U	P/N: **RZA-32-A69-CAY-A1**	1525	75,5	
37U	P/N: **RZA-37-A69-CAY-A1**	1750	84,0	
42U	P/N: **RZA-42-A69-CAY-A1**	1970	92,3	
45U	P/N: **RZA-45-A69-CAY-A1**	2105	97,4	
47U	P/N: **RZA-47-A69-CAY-A1**	2194	100,9	

width 600mm, depth 1000mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: **RZA-15-A61-CAY-A1**	770	48,3	300
18U	P/N: **RZA-18-A61-CAY-A1**	900	53,2	
22U	P/N: **RZA-22-A61-CAY-A1**	1080	59,8	
27U	P/N: **RZA-27-A61-CAY-A1**	1300	70,8	400
32U	P/N: **RZA-32-A61-CAY-A1**	1525	79,6	
37U	P/N: **RZA-37-A61-CAY-A1**	1750	88,5	
42U	P/N: **RZA-42-A61-CAY-A1**	1970	97,1	
45U	P/N: **RZA-45-A61-CAY-A1**	2105	102,5	
47U	P/N: **RZA-47-A61-CAY-A1**	2194	106,0	

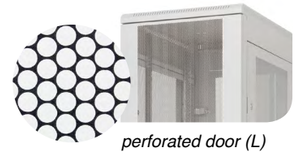
width 600mm, depth 1100mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: **RZA-15-A60-CAY-A1**	770	49,5	300
18U	P/N: **RZA-18-A60-CAY-A1**	900	54,7	
22U	P/N: **RZA-22-A60-CAY-A1**	1080	61,9	
27U	P/N: **RZA-27-A60-CAY-A1**	1300	70,9	400
32U	P/N: **RZA-32-A60-CAY-A1**	1525	79,9	
37U	P/N: **RZA-37-A60-CAY-A1**	1750	89,0	
42U	P/N: **RZA-42-A60-CAY-A1**	1970	97,8	
45U	P/N: **RZA-45-A60-CAY-A1**	2105	103,3	
47U	P/N: **RZA-47-A60-CAY-A1**	2194	106,5	

width 600mm, depth 1200mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: **RZA-15-A62-CAY-A1**	770	52,4	300
18U	P/N: **RZA-18-A62-CAY-A1**	900	57,8	
22U	P/N: **RZA-22-A62-CAY-A1**	1080	65,3	
27U	P/N: **RZA-27-A62-CAY-A1**	1300	74,6	400
32U	P/N: **RZA-32-A62-CAY-A1**	1525	84,0	
37U	P/N: **RZA-37-A62-CAY-A1**	1750	91,5	
42U	P/N: **RZA-42-A62-CAY-A1**	1970	102,7	
45U	P/N: **RZA-45-A62-CAY-A1**	2105	108,3	
47U	P/N: **RZA-47-A62-CAY-A1**	2194	111,7	

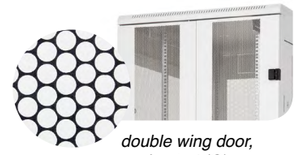
solid steel door (C)



perforated door (L)

double wing door, hardened glass (E)

double wing door, solid steel (F)



double wing door, perforated (G)

width 800mm, depth 600mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RZA-15-A86-CAY-A1	770	43,2	300
18U	P/N: RZA-18-A86-CAY-A1	900	47,4	
22U	P/N: RZA-22-A86-CAY-A1	1080	53,1	
27U	P/N: RZA-27-A86-CAY-A1	1300	62,1	400
32U	P/N: RZA-32-A86-CAY-A1	1525	69,6	
37U	P/N: RZA-37-A86-CAY-A1	1750	77,2	
42U	P/N: RZA-42-A86-CAY-A1	1970	84,7	
45U	P/N: RZA-45-A86-CAY-A1	2105	89,2	
47U	P/N: RZA-47-A86-CAY-A1	2194	92,2	

width 800mm, depth 800mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RZA-15-A88-CAY-A1	770	50,0	300
18U	P/N: RZA-18-A88-CAY-A1	900	54,7	
22U	P/N: RZA-22-A88-CAY-A1	1080	61,1	
27U	P/N: RZA-27-A88-CAY-A1	1300	70,7	400
32U	P/N: RZA-32-A88-CAY-A1	1525	79,0	
37U	P/N: RZA-37-A88-CAY-A1	1750	87,4	
42U	P/N: RZA-42-A88-CAY-A1	1970	95,6	
45U	P/N: RZA-45-A88-CAY-A1	2105	100,6	
47U	P/N: RZA-47-A88-CAY-A1	2194	103,8	

width 800mm, depth 900mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RZA-15-A89-CAY-A1	770	54,5	300
18U	P/N: RZA-18-A89-CAY-A1	900	59,6	
22U	P/N: RZA-22-A89-CAY-A1	1080	66,5	
27U	P/N: RZA-27-A89-CAY-A1	1300	77,9	400
32U	P/N: RZA-32-A89-CAY-A1	1525	87,1	
37U	P/N: RZA-37-A89-CAY-A1	1750	96,4	
42U	P/N: RZA-42-A89-CAY-A1	1970	105,4	
45U	P/N: RZA-45-A89-CAY-A1	2105	111,0	
47U	P/N: RZA-47-A89-CAY-A1	2194	114,8	

width 800mm, depth 1000mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RZA-15-A81-CAY-A1	770	57,9	300
18U	P/N: RZA-18-A81-CAY-A1	900	63,3	
22U	P/N: RZA-22-A81-CAY-A1	1080	70,5	
27U	P/N: RZA-27-A81-CAY-A1	1300	82,2	400
32U	P/N: RZA-32-A81-CAY-A1	1525	91,8	
37U	P/N: RZA-37-A81-CAY-A1	1750	101,4	
42U	P/N: RZA-42-A81-CAY-A1	1970	110,8	
45U	P/N: RZA-45-A81-CAY-A1	2105	116,6	
47U	P/N: RZA-47-A81-CAY-A1	2194	120,5	

width 800mm, depth 1100mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RZA-15-A80-CAY-A1	770	65,8	300
18U	P/N: RZA-18-A80-CAY-A1	900	71,6	
22U	P/N: RZA-22-A80-CAY-A1	1080	79,4	
27U	P/N: RZA-27-A80-CAY-A1	1300	87,9	400
32U	P/N: RZA-32-A80-CAY-A1	1525	97,7	
37U	P/N: RZA-37-A80-CAY-A1	1750	107,5	
42U	P/N: RZA-42-A80-CAY-A1	1970	116,9	
45U	P/N: RZA-45-A80-CAY-A1	2105	123,0	
47U	P/N: RZA-47-A80-CAY-A1	2194	126,6	

width 800mm, depth 1200mm

		height (mm)	weight (kg)	capacity (kg)
15U	P/N: RZA-15-A82-CAY-A1	770	69,5	300
18U	P/N: RZA-18-A82-CAY-A1	900	75,1	
22U	P/N: RZA-22-A82-CAY-A1	1080	83,4	
27U	P/N: RZA-27-A82-CAY-A1	1300	92,3	400
32U	P/N: RZA-32-A82-CAY-A1	1525	102,4	
37U	P/N: RZA-37-A82-CAY-A1	1750	110,7	
42U	P/N: RZA-42-A82-CAY-A1	1970	122,4	
45U	P/N: RZA-45-A82-CAY-A1	2105	128,7	
47U	P/N: RZA-47-A82-CAY-A1	2194	132,4	

19“ server cabinet RDA

Welded 19” server cabinet supplied with a perforated door to provide maximum cooling. IP20, loading capacity 1800kg.

19“ server cabinet RDE

Cabinet with loading capacity of 1800kg, IP54 protection, equipped with its own air conditioner (optional), suitable for dusty environment.

19“ free-standing cabinet RIE

Cabinet with loading capacity of 400kg, IP54 protection, designed for dusty or humid environments.

19“ free-standing cabinet RTA

Welded cabintet shell with removable sidewall and a backward case, IP 20, loading capacity 1200/1500 kg.

19“ free-standing cabinet RPE

Cabinet for industrial environment intended for installation of computers or control components of technological units. IP54.

19“ free-standing cabinet RPA

Cabinet for industrial environment intended for installation of computers or control components of technological units. IP25.

19“ free-standing cabinet RYA

Assembled cabinet easily decomposable, IP 20, loading capacity 1200/1500 kg.

3.
CABINETS

19” server cabinets

19“ server compact cabinets RMA

- welded construction with IP20 protection
- single door, hardened smoked glass
- removable and lockable side panels and perforated rear cover (air permeability 80%) enable an easy access to the installed devices
- front vertical rails are continuously adjustable
- frame of the cabinet and all removable parts are connected with earthing cables
- cable openings covered with breakout-type blanking panels located at the top, bottom and rear part of the cabinet
- breakout-type blanking panels for fan units are located in the top and bottom of the cabinet
- nivelation feet (standard)
- castors RAX-MS-X81-X1 and base with filter RAB-PO-X81-XN available upon request
- stabilizing footing RAB-SS-X04-X1 available upon request (applies to cabinets with base only)
- sliding vertical rails installation in a span of 19”, 21” or 23” (only in case of cabinets with width of 800 mm)
- protective blanking panel with a brush to seal the cabinet opening against dust penetration (1 pc)
- set of M6 screws and captive nuts (16 pcs)

Colour	black RAL9005
Surface	structured, matt

Note: Server cabinets can be supplied also with L-profile type of vertical fixing rails for HP servers

width 600mm, depth 900mm

- perforated single door with air permeability of 80%

		height (mm)	weight (kg)	capacity (kg)
42U	P/N: **RMA-42-L69-BAY-A1-OZA**	1970	85,8	400

hardened smoked glass door

width 600mm, depth 900mm

- single door, hardened smoked glass

		height (mm)	weight (kg)	capacity (kg)
42U	P/N: **RMA-42-A69-BAY-A1-OZA**	1970	90,8	400

width 800mm, depth 1000mm

- single door, hardened smoked glass

		height (mm)	weight (kg)	capacity (kg)
27U	P/N: **RMA-27-A81-BAY-A1-OZA**	1300	81,2	400
45U	P/N: **RMA-45-A81-BAY-A1-OZA**	2105	115,6	

19“ server demountable cabinets RZA

- screwed construction with IP20 protection
- single door, hardened smoked glass
- partial or complete dismantling enables installation in places that are difficult to reach
- removable and lockable side panels and rear cover enable an easy access to the installed devices
- front, central and rear vertical rails are continuously adjustable
- frame of the cabinet and all removable parts are connected with earthing cables
- cable openings covered with breakout-type blanking panels located at the top, bottom and rear part of the cabinet
- breakout-type blanking panels for fan units are located in the top and bottom of the cabinet
- nivelation feet (standard)
- castors RAX-MS-X81-X1 and base with filter RAB-PO-X81-XN available upon request
- stabilizing footing RAB-SS-X04-X1 available upon request (applies to cabinets with base only)
- the system enables sliding vertical rails installation in a span of 19”, 21” or 23”
- protective blanking panel with a brush to seal the cabinet opening against dust penetration (1 pc)
- set of M6 screws and captive nuts (16 pcs)

Colour	black RAL9005
Surface	structured, matt

Note: Server cabinets can be supplied also with L-profile type of vertical fixing rails for HP servers

width 800mm, depth 1000mm

- perforated single door with air permeability of 80%

		height (mm)	weight (kg)	capacity (kg)
42U	P/N: **RZA-42-L81-BAY-A1-OZA**	1970	105,8	400

width 800mm, depth 1000mm

- single door, hardened smoked glass

		height (mm)	weight (kg)	capacity (kg)
42U	P/N: **RZA-42-A81-BAY-A1-OZA**	1970	110,8	400

hardened smoked glass door

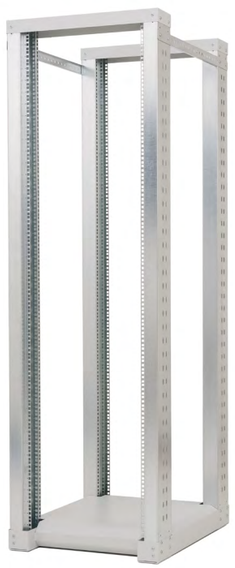
19” open frames

19“ single section frame RSX

- demountable steel construction
- nivelation feet (standard)
- castors RAX-MS-X81-X1 available upon request

Base dimensions	600 x 600mm
Colour	gray RAL7035
Surface	structured, matt

		height (mm)	weight (kg)	capacity (kg)
27U	P/N: **RSX-27-XS6-CXX-A1**	1365	27,5	150
32U	P/N: **RSX-32-XS6-CXX-A1**	1587	29,6	
37U	P/N: **RSX-37-XS6-CXX-A1**	1809	31,7	
42U	P/N: **RSX-42-XS6-CXX-A1**	2031	33,7	
45U	P/N: **RSX-45-XS6-CXX-A1**	2165	35,0	



19“ double section frame RSX

- demountable steel construction
- nivelation feet (standard)
- castors RAX-MS-X81-X1 available upon request

Base dimensions	600 x 800mm
Colour	gray RAL7035
Surface	structured, matt

		height (mm)	weight (kg)	capacity (kg)
27U	P/N: **RSX-27-XD8-CXX-A1**	1365	46,9	400
32U	P/N: **RSX-32-XD8-CXX-A1**	1587	51,0	
37U	P/N: **RSX-37-XD8-CXX-A1**	1809	55,1	
42U	P/N: **RSX-42-XD8-CXX-A1**	2031	59,2	
45U	P/N: **RSX-45-XD8-CXX-A1**	2165	61,7	

Accessories for 19” cabinets

19“ shelf

- freely adjustable in any depth
- stabilizers for gripping rear vertical rails
  (applies to shelves with depth of 350mm and higher)
- efficient cooling of active equipment due to preforation
- set of M6 screws and captive nuts (8 pcs)

Height	2/3U (32,2mm)
Colour	black RAL9005
Surface	structured, matt

	depth (mm)	capacity (kg)
P/N: **RAB-UP-150-A4**	150	15
P/N: **RAB-UP-250-A4**	250	
P/N: **RAB-UP-350-A4**	350	80
P/N: **RAB-UP-450-A4**	450	
P/N: **RAB-UP-550-A4**	550	
P/N: **RAB-UP-650-A4**	650	
P/N: **RAB-UP-750-A4**	750	
P/N: **RAB-UP-850-A4**	850	
P/N: **RAB-UP-950-A4**	950	

Note: Capacity of 150kg is possible with shelves with depth of 350mm and higher.

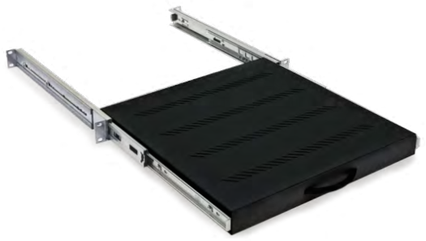
19“ heavy duty shelf

- freely adjustable in any depth
- stabilizers for gripping rear vertical rails
- efficient cooling of active equipment due to preforation
- set of M6 screws and captive nuts (8 pcs)

Height	2/3U (32,2mm)
Colour	black RAL9005
Surface	structured, matt

	depth (mm)	capacity (kg)
P/N: **RAB-UP-450-H4**	450	150
P/N: **RAB-UP-550-H4**	550	
P/N: **RAB-UP-650-H4**	650	
P/N: **RAB-UP-750-H4**	750	
P/N: **RAB-UP-850-H4**	850	
P/N: **RAB-UP-950-H4**	950	

19“ sliding shelf



- freely adjustable in any depth
- stabilizers for gripping the rear vertical rails
- telescopic mechanism enablesthe device to slide out to the front
- efficient cooling of active equipment due to preforation
- set of M6 screws and captive nuts (8 pcs)

Height	1U (44,5mm)
Colour	black RAL9005
Surface	structured, matt

	depth (mm)	capacity (kg)
P/N: **RAB-UP-X30-A1**	350	30
P/N: **RAB-UP-X31-A1**	450	
P/N: **RAB-UP-X20-A1**	550	45
P/N: **RAB-UP-X19-A1**	650	

19“ sliding lockable shelf 2U for keyboard and mouse

Height	2U (89mm)
Colour	black RAL9005
Surface	structured, matt

	depth (mm)	capacity (kg)
P/N: **RAB-UP-X29-A1**	360	15

Fan unit with thermostat for top cover and floor

- designed for top cover of free standing cabinets
- designed for free standing cabinets with base and bottom fixing frame RAX-CH-XXX-X1

Colour**RA**x-CH-X0x-X3	C - gray RAL7035 (standard) B - black RAL9005
Surface	structured, matt

	number of ventilators	input (W)
P/N: **RAC-CH-X03-X3**	2	30
P/N: **RAC-CH-X04-X3**	4	60
P/N: **RAC-CH-X05-X3**	6	90

19“ fan unit with thermostat

- designed for vertical rails of all cabinet types such as well-mounted, free standing cabinets and server racks
- set of M6 screws and captive nuts (4 pcs)

Width	19” (482,6mm)
Height	2U (89mm)
Colour	black RAL9005
Surface	structured, matt

	number of ventilators	input (W)
P/N: **RAB-CH-X01-A1**	2	30
P/N: **RAB-CH-X02-A1**	4	60

Fan unit with thermostat

P/N: **RAC-CH-X26-X1**

- designed for top cover and bottom of wall-mounted cabinets RUA

Number of ventilators	3
Input	45W
Colour	gray RAL7035
Surface	structured, matt

Ventilator

P/N: **RAX-CH-X07-X9**

- designed for top cover and bottom of wall-mounted cabinets RUA

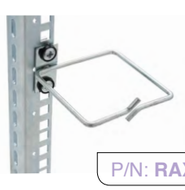
Number of ventilators	1
Input	15W
Colour	black RAL9005
Surface	structured, matt

Cable management rings

P/N: **RAX-D1-X48-X3**

P/N: **RAX-D2-X48-X3**

P/N: **RAX-D3-X48-X3**



P/N: **RAX-D1-X88-X3**

P/N: **RAX-D2-X88-X3**

P/N: **RAX-D3-X88-X3**

Base

- designed for all types of free standing cabinets and server racks
- dust filter included

Colour RA**x**-PO-Xxx-XN	C - gray RAL7035 (standard) B - black RAL9005
Surface	structured, matt

	width (mm)	depth (mm)	capacity (kg)
P/N: **RAC-PO-X66-XN**	600	600	400
P/N: **RAC-PO-X68-XN**	600	800	
P/N: **RAC-PO-X69-XN**	600	900	
P/N: **RAC-PO-X61-XN**	600	1000	
P/N: **RAC-PO-X60-XN**	600	1100	
P/N: **RAC-PO-X62-XN**	600	1200	
P/N: **RAC-PO-X86-XN**	800	600	
P/N: **RAC-PO-X88-XN**	800	800	
P/N: **RAC-PO-X89-XN**	800	900	
P/N: **RAC-PO-X81-XN**	800	1000	
P/N: **RAC-PO-X80-XN**	800	1100	
P/N: **RAC-PO-X82-XN**	800	1200	

Heavy duty base

- designed for all types of free standing cabinets and server racks
- dust filter included

Colour RA**x**-PO-Xxx-XD	C - gray RAL7035 (standard) B - black RAL9005
Surface	structured, matt

	width (mm)	depth (mm)	capacity (kg)
P/N: **RAC-PO-X66-XD**	600	600	1 500
P/N: **RAC-PO-X68-XD**	600	800	
P/N: **RAC-PO-X69-XD**	600	900	
P/N: **RAC-PO-X61-XD**	600	1000	
P/N: **RAC-PO-X60-XD**	600	1100	
P/N: **RAC-PO-X62-XD**	600	1200	
P/N: **RAC-PO-X86-XD**	800	600	
P/N: **RAC-PO-X88-XD**	800	800	
P/N: **RAC-PO-X89-XD**	800	900	
P/N: **RAC-PO-X81-XD**	800	1000	
P/N: **RAC-PO-X80-XD**	800	1100	
P/N: **RAC-PO-X82-XD**	800	1200	

Filter for base

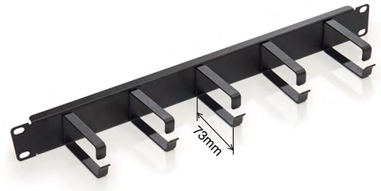
Surface	structured, matt

	width (mm)	colour
P/N: **RAB-PO-XF1-X1**	600	black RAL9005
P/N: **RAB-PO-XF2-X1**	800	black RAL9005
P/N: **RAC-PO-XF1-X1**	600	gray RAL7035
P/N: **RAC-PO-XF2-X1**	800	gray RAL7035

19” cable management panel with ring depth of 73mm, metallic

P/N: **RAB-VP-X21-A2**

- provides horizontal cable management for double amount of patch cables cables in comparison with a standard cable management panel RAB-VP-X01-A2
- suitable when using HD patch panels with a density of 48 ports in 1U
- set of M6 screws and captive nuts (4 pcs)

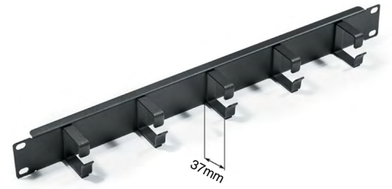


Panel height	1U (44,5mm)
Panel width	19” (482,6mm)
Ring height	42mm
Ring width	73mm
Colour	black RAL9005
Surface	structured, matt

19” cable management panel with ring depth of 37mm, metallic

P/N: **RAB-VP-X01-A2**

- provides horizontal cable management in the cabinet
- set of M6 screws and captive nuts (4 pcs)



Panel height	1U (44,5mm)
Panel width	19” (482,6mm)
Ring height	42mm
Ring width	37mm
Colour	black RAL9005
Surface	structured, matt

19” cable management panel, plastic

P/N: **RAB-VP-X02-A1**

- provides horizontal cable management in the cabinet
- set of M6 screws and captive nuts (4 pcs)

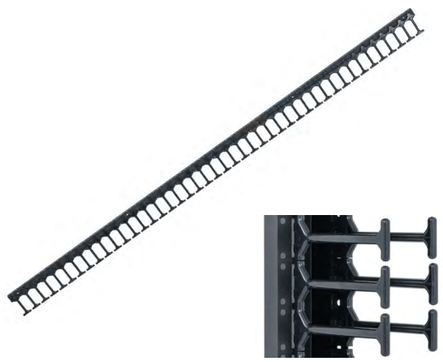
Panel height	1U (44,5mm)	
Panel width	19” (482,6mm)	
Ring height	42mm	
Ring width	60mm	
Colour	cable duct	RAL7038
	base	RAL9005
Surface	structured, matt	

Vertical cable management system

P/N: **RAB-VP-H42-Y1**

- cable management vertical panel 42U – comb, single row
- RAL9005

Vertical cable management system



P/N: **RAB-VP-H42X1**

- cable management vertical panel 42U – comb, double row
- RAL9005

Vertical cable management system

P/N: **RAB-VP-H10-X1**

- cable management vertical panel 10U – comb, for cabinets 800mm width
- RAL9005

Vertical cable management system

P/N: **RAB-VP-010-X1**

- swing, removable cover for cable management vertical panel RAB-VP-H10-X1

Set of wheels

P/N: **RAX-MS-X81-X1**

- designed for all types of free standing cabinets and server racks
- 2 castors with a brake, 2 castors without a brake
- installation kit included

Capacity	800kg

Stabilizers

P/N: **RAB-SS-X01-X1**

- stabilization footing prevents cabinets from tilting
- designed for all types of free standing cabinets and server racks with base
- installation kit included

Capacity	400kg
Colour	black RAL9005
Surface	structured, matt

19” lightning unit

P/N: **RAB-OJ-X01-A1**

Colour RA**x**-OJ-X01-A1	B - black RAL9005 (standard) C - gray RAL7035
Width	19” (482,6mm)
Height	1U (44,5mm)
Depth	155mm
Input	50W
Surface	structured, matt

LED-diode lightning unit

P/N: **RAX-OJ-X07-X1**

- external adapter 12V/230V
- efficient gripping in any part of a cabinet due to a magnet

Width	482,6mm
Height	23,4mm
Depth	24,5mm
Input	4W
Cable length	3m

Installation kit

P/N: **RAX-MS-X19-X1**

- components for fixing a device into vertical rails
- 4 screws and, 4 captive nuts, 4 plastic washers

19“ blanking panel

- covers cable openings in cabinets, which ensures effective cooling
- set of M6 screws and captive nuts (4 pcs)

Colour	black RAL9005
Surface	structured, matt

	height	width
P/N: **RAB-ZP-X01-A1**	1U (44,5mm)	19” (482,6mm)
P/N: **RAB-ZP-X02-A1**	2U (88,5mm)	19” (482,6mm)

19“ cable entry panel

P/N: **RAB-ZP-X03-A1**

P/N: **RAB-ZP-X03-A2** with brush strip

- provides horizontal cable management in the cabinet
- set of M6 screws and captive nuts (4 pcs)

Height	1U (44,5mm)
Width	19” (482,6mm)
Colour	black RAL9005
Surface	structured, matt

19“ rail 3U for circuit breakers with cover

P/N: **RAB-JL-X01-A1** for 23 modules

P/N: **RAB-JL-X02-A1** for 22 modules

Height	3U (133,5mm)
Width	19” (482,6mm)
Colour	black RAL9005
Colour RA**x**-JL-X0X-A1	B - black RAL9005 (standard) C - gray RAL7035
Surface	structured, matt

3.
CABINETS

Power distribution units - PDUs

19“ PDU, 6 x 230V, Schuko

P/N: **620P06**

- german style sockets (DIN 49440)
- universal german and french style cable plug
- illuminated power switch protected against accidental disconnection of devices
- LEDs for earthing, surge protection and power indications
- set of M6 screws and captive nuts (4 pcs)

Rating voltage	250V
Nominal load current	Σ I_N 16A
Dimensions (h x w x d)	45 (1U) x 485 (19”) x 45
Cable length	2,5m

19“ PDU, 9 x 230V, Schuko

P/N: **620S09**

- german style sockets (DIN 49440)
- universal german and french style cable plug (DIN49441)
- LED for power indications
- set of M6 screws and captive nuts (4 pcs)

Rating voltage	250V
Nominal load current	Σ I_N 16A
Dimensions (h x w x d)	45 (1U) x 485 (19”) x 45
Cable length	2,5m

19“ PDU, 9 x 230V, Schuko

P/N: **620S10**

- german style sockets (DIN 49440)
- universal german and french style cable plug (DIN49441)
- illuminated power switch protected against accidental disconnection of devices
- set of M6 screws and captive nuts (4 pcs)

Rating voltage	250V
Nominal load current	Σ I_N 16A
Dimensions (h x w x d)	45 (1U) x 485 (19”) x 45
Cable length	2,5m

19“ PDU, 7 x 230V

P/N: **620050**

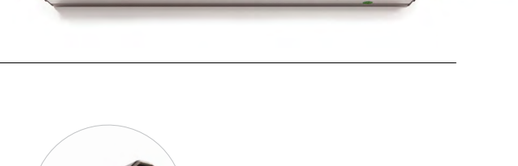
- french style sockets
- universal german and french style cable plug
- over voltage protection
- illuminated power switch protected against accidental disconnection of devices
- LED for surge protection indication
- set of M6 screws and captive nuts (4 pcs)

Rating voltage	250V
Nominal load current	Σ I_N 16A
Dimensions (h x w x d)	45 (1U) x 485 (19”) x 45
Cable length	2,5m

19“ PDU, 9 x 230V

P/N: **620090**

- french style sockets
- universal german and french style cable plug
- illuminated power switch protected against accidental disconnection of devices
- set of M6 screws and captive nuts (4 pcs)



Rating voltage	250V
Nominal load current	Σ I_N 16A
Dimensions (h x w x d)	45 (1U) x 485 (19”) x 45
Cable length	2,5m

19“ PDU, 9 x 230V

P/N: **620090I**

- french style sockets
- IEC 320 C14 cable plug
- LED for power indications
- set of M6 screws and captive nuts (4 pcs)

Rating voltage	250V
Nominal load current	Σ I_N 10A
Dimensions (h x w x d)	45 (1U) x 485 (19”) x 45
Cable length	2,5m

19“ PDU, 8 x IEC320 C13

P/N: **620I08**

- IEC320 C13 sockets
- universal german and french style cable plug
- illuminated power switch protected against accidental disconnection of devices
- set of M6 screws and captive nuts (4 pcs)

Rating voltage	250V
Nominal load current	Σ I_N 10A
Dimensions (h x w x d)	45 (1U) x 485 (19”) x 45
Cable length	2,5m

19“ PDU, 9 x IEC320 C13

P/N: **620I09I**

- IEC320 C13 sockets
- IEC 320 C14 cable plug
- LED for power indications
- set of M6 screws and captive nuts (4 pcs)

Rating voltage	250V
Nominal load current	Σ I_N 10A
Dimensions (h x w x d)	45 (1U) x 485 (19”) x 45
Cable length	2,5m

19“ PDU, 8 x 230V

P/N: **ACARS8FAR3**

- french style sockets
- universal german and french style cable plug
- over voltage protection with filter
- illuminated power switch
- set of M6 screws and captive nuts (4 pcs)

Rating voltage	250V
Nominal load current	Σ I_N 10A
Leakage current	< 0,5 mA
Fusing	automatic fuse 10A / 250V
Dimensions (h x w x d)	55 (1,5U) x 482,6 (19”) x 54
Cable length	3m

19“ PDU, 5 x 230V

P/N: **ACARF5FAR3**

- french style sockets
- universal german and french style cable plug
- over voltage protection with filter
- illuminated power switch
- set of M6 screws and captive nuts (4 pcs)

Rating voltage	250V
Nominal load current	Σ I_N 10A
Leakage current	< 0,5mA
Fusing	automatic fuse 10A/250V
Dimensions (h x w x d)	57 (1,5U) x 482,6 (19“) x 55mm
Cable length	3m

Inteligent PDUs

KE*Line*® Rack PDUs are customized modular products mostly used in data centers and all other premises for economical and robust rack concepts.

Rack PDUs are designed for the growing number of electronic components in server racks. Available with different accessories, such as circuit breakers, surge protection, mains filter, master-slave function, emergency-off button, fault current circuit breaker and local and remote power measurement.

Remotely monitored PDUs

Rack PDU with remote power measurement for data centers. Available in single and three-phase versions, with local and remote power measurement. Remote power measurement module features:

- PDU with integrated power measurement module with remote monitoring.
- LCD display.
- Can be set for up to 3 threshold values and unbalanced load monitoring.
- Rotable displays in 90° steps.
- Protocols: HTTP, SNMP, Syslog.

Locally monitored PDUs

Rack PDU with local power measurement for data centers. Available in single and three-phase versions, with and without power measurement. Local power measurement module features:

- LCD display.
- Integrated unbalanced load monitoring with three-phase feed.
- Rotable displays in 90° steps.

3.
CABINETS

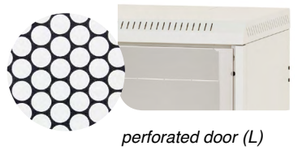
10” wall-mounted cabinets and accessories

10“ wall-mounted cabinets RBA

- welded construction with IP30 protection
- hardened smoked glass door (standard)
- solid steel door available upon request
- front vertical rails are continuously adjustable
- frame of the cabinet and all removable parts are connected with earthing cables
- cable openings covered with breakout-type blanking panels located at the top, bottom and rear part of the cabinet
- set of M6 screws and captive nuts (8 pcs)

Front door RBA-xx-**x**xx–xAY–C1	A - hardened smoked glass door (standard) C - solid steel door L - perforated door
Colour RBA-xx-xxx–**x**AY–C1	C - gray RAL7035 (standard) B - black RAL9005
Surface	structured, matt

solid steel door



perforated door (L)

width 310mm, depth 260mm

		height (mm)	weight (kg)	capacity (kg)
4U	P/N: **RBA-04-AS3–CAY–C1**	248	5,4	20
6U	P/N: **RBA-06-AS3–CAY–C1**	337	6,9	20
9U	P/N: **RBA-09-AS3–CAY–C1**	470	8,2	20

10“ shelf

P/N: **RAB-UP-X01-C1**

- efficient cooling of active equipment due to perforation
- set of M6 screws and captive nuts (4 pcs)

Height	1U (44,5mm)
Width	10” (254mm)
Depth	140mm
Material	steel
Colour	black RAL9005
Surface	structured, matt

10“ cable management panel

P/N: **RAB-VP-X02-C1**

- provides horizontal cable management in the cabinet
- set of M6 screws and captive nuts (4 pcs)

Panel height	1U (44,5mm)
Panel width	10” (254mm)
Ring height	42mm
Ring width	37mm
Colour	black RAL9005
Surface	structured, matt

10“ fibre optic box, empty

- set of M6 screws and captive nuts (4 pcs)

P/N: **RAB-FO-X01-C1** for 8 x ST-ST or FC-FC adapters
P/N: **RAB-FO-X01-C2** for 8 x SC-SC, LC-LC Duplex or LSH-LSH adapters

Height	1U (44,5mm)
Width	10” (254mm)
Depth (including cable management)	140mm
Material	steel
Colour	black RAL9005
Surface	structured, matt

10“ distribution panel, 4 x 230V

P/N: **RAB-PD-X90-C1**

- LED power indicator
- set of M6 screws and captive nuts (4 pcs)

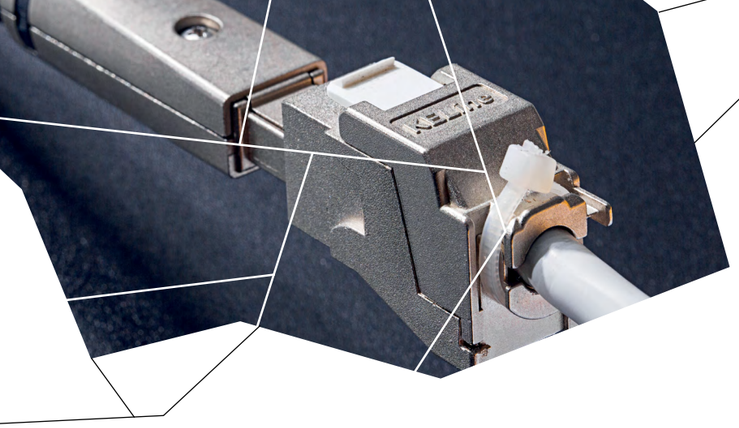
Rating voltage	250V
Nominal load current	Σ I_N 10A
Dimensions (h x w x d)	44,4 x 256 x 44,4mm
Cable length	2m

10” patch panel for 8xRJ45, empty

P/N: **RAB-PP-X01-C4**

- integrated cable management
- suitable for keystone jacks such as KEJ-C6A-S-10G, KEJ-C6-S-TL, KEJ-C6-U-TL, KEJ-C5E-S-TL, KEJ-C5E-U-TL
- set of M6 screws and captive nuts (4 pcs)

Height	1U (44,5mm)
Width	10” (254mm)
Depth (including cable management)	66mm
Material	steel
Colour	black RAL9005
Surface	structured, matt



KELine®

4.

CABLING CERTIFIERS

153. Knowledge base

154. IDEAL Industries

155. FLUKE Networks

Knowledge base

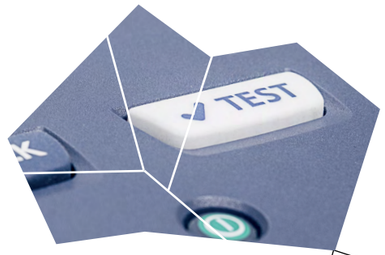
Strategic partnership

IDEAL LanTEK III, FLUKE DSX 5000 and FLUKE DSX 8000 cabling certifiers are delivered with firmware containing a KE*Line*® installation cable database. By selecting the model number of a cable, the cabling certifier automatically adjusts its parameters (NVP) and displays them in test protocols. This reduces the possibility of errors and simplifies the processing of certification protocols.

These devices certify installed cabling, verify the quality of installations and indicate errors caused by non-professional installation.The certifier does not replace certification of already installed components. This must be carried out by special testing laboratories.

Certificates

IDEAL LanTEK III, FLUKE DSX 5000 and FLUKE DSX 8000 cabling certifiers are certified by ETL international independent laboratories according to IEC 61935-1 (2nd edition).



KELine®

IDEAL LanTEK® III

- used for certification of installed cabling
- 4.3” LCD colour wide screen 16:9 ultra bright display
- new permanent link adapters
- new troubleshooting features (TDX, TDRL)
- WiFi module to connect smartphones or tablets
- certifies multimode or single mode fibre (optional FiberTEK III modules)
- new test data software to create professional reports in PDF
- battery life of 18 hours for continuous testing without interruption
- IDEAL AnyWARE app enables test data sharing with colleagues or customers without leaving the job site

LanTEK® III - 1000MHz

P/N: **R161004**

Frequency range	1-1000 MHz
Accuracy	Level IV (IEC 61935-1)
Category / transmission classes	Cat 5E / Class D, Cat 6 / Class E, Cat 6A / Class E_A , Class F, Class F_A

LanTEK® III - 500MHz

P/N: **R161003**

Frequency range	1 - 500 MHz
Accuracy	Level IIIe (IEC 61935-1)
Category / transmission classes	Cat 5E / Class D, Cat 6 / Class E, Cat 6A / Class E_A

FLUKE Versiv

- used for certification of installed cabling Cat.5E / Class D, Cat.6 / Class E, Cat.6A / Class E_A, Class F and Class F_A
- high speed test time of Cat.6A in 10 second
- graphically displays the source of failures including crosstalk and distance to shield faults
- internal memory capacity up to 12,000 tests results including full graphics
- 5.7” capacitive touchscreen
- lithium-ion battery with capacity of 8 hours
- first certifying tester able to measure TCL and ELTCTL
- HDTDx analyzer with Dedicated Diagnostics
- measuring continuity of shielding and resistance imbalance
- Fluke Case includes Versiv Main & Remote and DSX Copper (2) modules

FLUKE 1 GHz DSX-5000 CableAnalyzer

P/N: **DSX-5000**

Frequency range	1-1000 MHz
Accuracy	Level V (IEC 61935-1)

FLUKE Versiv

- used for certification of installed cabling Cat. 5E / Class D, Cat 6 / Class E, Cat. 6A / Class E_A, Class F and Class F_A, Cat. 8 / Class I, II
- high speed test time of Cat 6A in 10 second
- Cat. 8 in 16 seconds
- graphically displays the source of failures including crosstalk and distance to shield faults
- internal memory capacity up to 12,000 (Cat. 6A) and 5000 Cat.8 tests results including full graphics
- 5.7” capacitive touchscreen
- lithium-ion battery with capacity of 8 hours
- first certifying tester able to measure TCL and ELTCTL
- HDTDx analyzer with Dedicated Diagnostics
- measuring continuity of shielding and resistance imbalance

Fluke Case includes

- Versiv Main & Remote
- DSX Copper (2) modules

Fluke 2 GHz DSX-8000 CableAnalyzer

P/N: **DSX-8000**

Frequency range	1-2000 MHz
Accuracy	Level VI (IEC 61935-1Ed.5)

Notes

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